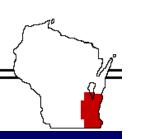
Southeastern Wisconsin Region



## COMERCIAL BUILDING CODE UPDATE 2009

Building Inspectors Association Southeastern Wisconsin Region 29 January 2009

Henry Kosarzycki, AIA & James B. Smith, P.E.

Program Managers

(608) 212-0138

Henry.Kosarzycki@wi.gov

**(608) 266-0251** 

Jim.Smith@wi.gov

Building Inspectors Association Northeastern Wisconsin Est 1971



# COMMERCIAL BUILDING CODE UPDATE 2009 Building Inspectors Association Northeastern Wisconsin 12 February 2009

Henry Kosarzycki, Ala & James B. Smith, P.E. Program Managers

(608) 212-0138 Henry.Kosarzycki@wi.gov (608) 266-0251 Jim.Smith@wi.gov<sup>2</sup>







## COMMERCIAL BUILDING CODE UPDATE 2009

Northwest Wisconsin Building Inspectors Association 26 February, 2009

Henry Kosarzycki, AIA & James B/Smith, P.E.

Program Managers

(608) 212-0138 Henry.Kosarzycki@wi.gov

(608) 266-0251 Jim.Smith@wi.gov





## COMMERCIAL BUILDING CODE UPDATE 2009

Southwestern Wisconsin Building Inspectors Association

Henry Kosarzycki, AIA

Program Manager

(608) 212-0138 Henry.Kosarzycki@wi.gov

### What's the BIA-SE Session About?

- What's on the horizon for the Wisconsin Commercial Building Code [WCBC] and S&B.
- New provisions
  - Carbon Monoxide emergency rule in place
  - Contractor Registration on the way

#### What's the BIA-NE Session About?

- What's on the horizon for the Wisconsin Commercial Building Code [WCBC] and S & B
- Administrative provisions
  - -Refresher on Plan Submittals for Work Occurring within Existing Buildings
- Changing Use in Exist'g Bldg's
- Alterations incl'g Tenant Build-Outs.

#### What Is the NWBIA Session About?

- What's on the horizon for the Wisconsin Commercial Building Code [WCBC] and S&B.
- Administrative provisions
  - -Refresher on Basics, Component Plan Submittals, Plan Submittals for Work Occurring within Existing Buildings
- Wisconsinisms for the IEBC portion of the WCBC

#### What's the SWWBIA Session About?

- What's on the horizon for S&B and the Wisconsin Commercial Building Code [WCBC]
- Carbon Monoxide Emergency Provisions
- Admin. Provisos regarding among other things: the difference between the Design and Supervising Professionals; plan review checklists that state plan reviewers have to use; Inspections of Care facilities, not just Hospitals & Nursing homes; and exceptions that may exist for Religious entities or facilities owned by them.
- Accessible multifamily housing, what is a TYPE A unit vs. what is a TYPE B unit.
- Kitchen hood insulation.
- Smoke Curtains, what are they and when required.
- Membrane Penetrations
- IEBC Alterations to Tenant Spaces and Changing Use

## 

#### WI Safety & Bldgs - Future

- □ Contractor "Registration"
- ☐ Public Hearings were held on January 21, 2009
- Next step is to reconcile P.H. comments so package can be sent to Legislature for their review.
- ☐ Target Effective Date Jan. 2010

## Associated Code Project Underway

#### **Building Contractor Registration**

- Applies to contractors and subcontractors not already credentialed by Commerce.
- Related to installing or affecting building elements addressed by Commerce Codes.
- Off-site manufacturing is not included.
- Delivery of materials is not included.

#### Building Cont. Reg'n. (cont)

Communication, Education and Oversight

- Code development participation
- Code change notifications
- Policy or procedure change notifications
- Product recalls CPSC notifications
- Obligations related to other state agencies

#### Building Cont. Reg'n. (cont)

#### **Cooperation with other Departments**

- Ag., Trade and Consumer Protection Contract Law
- Health Services Lead Notification
- Natural Resources Asbestos Remediation
- □ Revenue Income and Sales Tax Obligations
- Workforce Development Workers Compensation and Unemployment Insurance Program Participation

#### Building Cont. Reg'n. (cont)

#### Some Details

- Four year credential term
- \$100 credential fee if via Internet
- \$15 application fee if not via Internet
- No prerequisites for registration
- No continuing education requirement

#### WI Comm. Bldg. Code - Future

- Joint meeting of WCBCC & MDCC on Thursday 1/29/2009
- Shared Proposed Specialty Advisory Council Timeline

•Existing Bldgs [IEBC]	•Means of Egress
•Structural	•Fire Safety
•Fire Prot. Systems	•General
•Energy [IECC]	•HVAC [IMC & IFGC]

#### WCBC SPECIALTY SUBJECT [ICC Codes - 2009 Editions] Advisory Council Meetings

Date								8			
Date	IEBC	Egress	Struct.	Fire Prot. Systems	Fire Safety	General	Energy (IECC)	HVAC (IMC & IFGC)			
Feb 2009											
Mar 2009		X		X		X					
April 2009	X				X		X				
May 2009		X	X					X			
June 2009	X			X		X					
July 2009					X		X				
Aug 2009	UMB	UMB	X	UMB				X			
Sept 2009											
Oct 2009					UMB	UMB					
Nov 2009											
Dec 2009			UMB				UMB	UMB			
Jan 2010											
Feb 2010	PUBLIC HEARINGS										
Mar 2010											
April 2010	UMB										
May 2010											
June 2010											
July 2010											
Aug 2010											

# 9/1/5

#### **Carbon Monoxide Detectors**

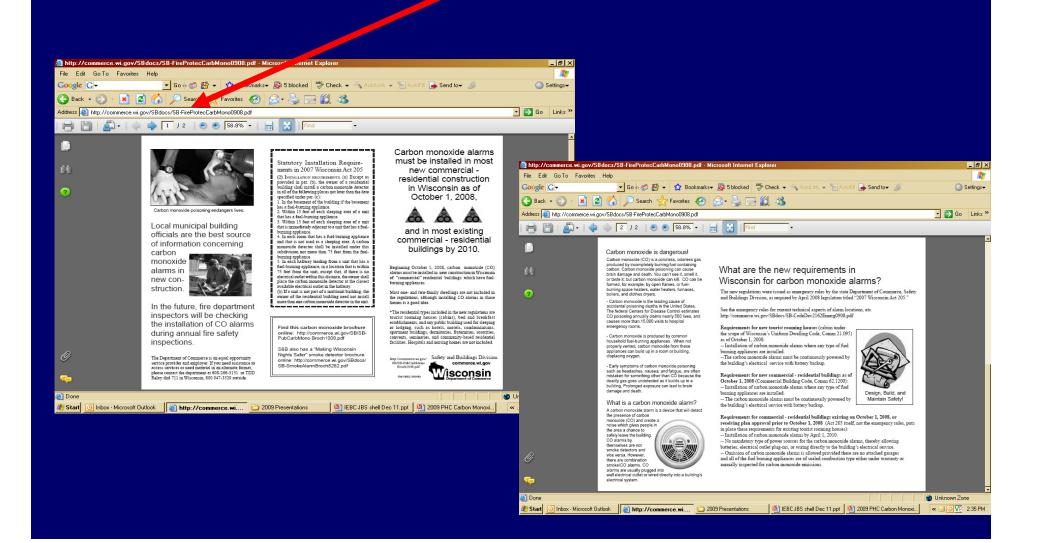
- History
  - Emergency Rules issued on
    9/3/2008 as a result of Legislation
  - Normal Rules must follow P.H.
     held on 10/14/2008
  - Will be going to Legislature early
     February

#### Law & Emergency

- The Emergency Rule implements the mandates imposed by 2007 Wisconsin Act 205 regarding the installation and maintenance of carbon monoxide alarms. Affects the owners of commercial buildings where people sleep or are lodged and all tourist room houses (rental cabins) where fuel burning appliances are installed. Comm. Bld'g types affected include apartment bldgs., condo's, hotels, motels, fraternities, sororities, dorm's, convents, seminaries, community based residential facilities, home shelters and bed and breakfast establishments.
- Not Hospitals and Nursing Homes

#### CO Det. Req's. - Helpful Tool

http://commerce.wi.gov/SBdocs/SB-FireProtecCarbMono0908.pdf



## Act 205 & Carbon Monoxide (CO) Detectors

- Who
- What
- Where
- When
- Why

## When Regulating, Why Always Comes First

- The Obvious Carbon monoxide is dangerous
- The Rules "2007 Wisconsin Act 205."

#### Why?

• Carbon monoxide is the leading cause of accidental poisoning deaths in the United States. The federal Centers for Disease Control estimates CO poisoning annually claims nearly 500 lives, and causes more than 15,000 visits to hospital emergency rooms.

Carbon monoxide is dangerous! Thus "2007 Wisconsin Act 205."

#### WHO MUST - COMMERCIAL

- Owners of newly constructed "commercial" residential buildings that have fuel burning appliances must arrange for the installation of carbon monoxide (CO) alarms
- Limited Retroactivity more later

#### WHO MUST – 1 & 2 FAMILY

- Owners of newly constructed "UDC" buildings that are licensed as Tourist Rooming Houses and also contain fuel-burning appliances must arrange for the installation of carbon monoxide (CO) alarms
- Limited Retroactivity more later

#### Significant Point

• If there are no fuel burning appliances in a building there is no requirement to install carbon monoxide (CO) alarms anywhere within that building

#### WHO SHOULD?

 Most one- and two-family dwellings are not included in the regulations, although installing CO alarms in those homes is recommended.

#### WHAT

- Carbon Monoxide detectors/alarms that bear the UL listing mark or the mark of any independent product safety certification organization
- Includes both:
  - -Single- and multiple-station CO alarms
  - Carbon monoxide detectors and their related systems and components

#### WHAT - Alarm

 Alarm is an assembly that incorporates a sensor, contro components, and an alarm notification appliance in one unit operated from a power source either located in the unit or obtained at the point of installation.

#### WHAT – Alarm (cont.)

- Single- and multiple-station alarm
  - What's the Dif?
- A multiple-station alarm is a single-station alarm capable of being interconnected to one or more additional alarms so that the actuation of one causes the alarm signal to operate in all the other interconnected alarms.

#### WHAT - Detector

 Detector is the device having a sensor that responds to carbon monoxide and that is connected to an alarm control unit of a detection & alarm system

#### WHAT - Detector (cont)

 Systems consist of a control unit, components (think detector, horns, strobes, etc.) & circuits arranged to monitor & annunciate tatus of CO initiating devices ne initiate the appropriate onse to those signals.

#### Where – 1 & 2 Family

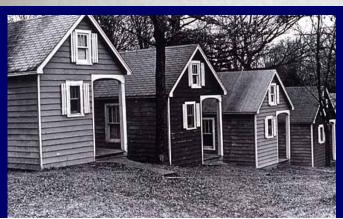
 CO alarms are only required to be installed in those new "UDC" Building that are used as a Tourist Rooming House and also contain fuel-burning appliances. Those types of buildings are also commonly called Tourist Cabins.

#### Tourist Cabin Made from Discarded Sailboat



The "sailboat" tourist cabin boasts even a sun deck to attract guests

WHEN A STORM wrecked the hull bottom of his sailboat, Albert O. James, of Lakeport, Mich., hauled it up on shore, scooped out a foundation for it in the sand, and changed it into an overnight cabin for tourists. A wooden shelter was erected over a double bed set into the forward part of the cockpit, while a screened sitting room was built at the aft end and fitted with colorful awnings. The transformation from boat to cottage cost less than five dollars.



#### **Tourist Rooming House**

- Incl's all cabins & cottages where sleeping accommodations are offered for pay to tourists or transients.
- NOT bed and breakfast establishmt's regulated under ch. HFS 197
- NOT private boarding or rooming houses not accommodating tourists or transients

### Where - Commercial

 CO alarms are to be installed in most new "residential" Commercial Bldg's that contain fuel-burning appliances. Includes tourist rooming houses/cabins, bed and breakfast establishments, and any public building used for sleeping or lodging, such as hotels, motels, condo's, apartment bldg's, dorm's, fraternities, sororities, convents, seminaries, community-based residential facilities, and homeless shelters.









### Not required in . . .

Hospitals and nursing homes



# Where within the building? 5 Locations

- INSTALLATION REQUIREMENTS. (a) Except as provided in par. (b), the owner of a residential building shall install a carbon monoxide detector in all of the following places not later than the date specified under par. (c):
  - -1. In the basement of the building if the basement has a fuel-burning appliance.

### Where in the Bld'g? (cont.)

- 2. Within 15 feet of each sleeping area of a unit that has a fuel-burning appliance.
- 3. Within 15 feet of each sleeping area of a unit that is immediately adjacent to a unit that has a fuel burning appliance.

### Where in Bldg.? (cont.)

 4. In each room that has a fuelburning appliance and that is not used as a sleeping area. A carbon monoxide detector shall be installed under this subdivision not more than 75 feet from the fuel burning appliance.

### Where in Bldg.? (cont.)

 5. In each hallway leading from a unit that has a fuel-burning appliance, in a location that is within 75 feet from the unit, except that, if there is no electrical outlet within this distance, the owner shall place the carbon monoxide detector at the closest available electrical outlet in the hallway.

### Where in Bldg.? (cont.)

• (b) If a unit is not part of a multiunit building, the owner of the residential building need not install more than one carbon monoxide detector in the unit.

# Where in the Bld'g Exception For Existing?

- Allows the omission of CO alarms provided there are no attached garages and all of the fuel burning appliances are of sealed combustion type either under warranty or annually inspected for CO emissions. [Comm 62.1200(2)(a)4.]
- Allows any power source if required

### When – New

 Beginning October 1, 2008, carbon monoxide (CO) alarms must be installed as a part of the new construction in Wisconsin's "commercial" residential bldg's and the select (tourist rooming only) UDC bldg's which have fuel burning appliances.

# When – Retroactivity [1 & 2 Family]

- Reqmt's for 1 & 2 family tourist room'g houses and cabins that *exist* on October 1, 2008, or receiving plan approval prior to October 1, 2008 (Act 205 itself, not the emergency rules, puts in place the retroactive requirements):
  - Installation of carbon monoxide alarms
     by April 1, 2010

### When – retroactivity [Commercial]

- Reqmt's for commercial residential buildings that exist on October 1, 2008, or receiving plan approval prior to October 1, 2008 (Act 205 itself, not the emergency rules, puts in place the retroactive requirements):
  - Installation of carbon monoxide alarms by April 1, 2010

# What's that about the regular rules?

- Very Little Difference
- Final rules will include references to another UL standard that covers system type detectors and their installations. [UL 2075 (2007 ed.) Gas and Vapor Detectors and Sensors]

# Stration.

### **Chapter Comm 61**

- ADMINISTRATION AND ENFORCEMENT
- Wisconsin Commercial Building Code
  - Comm 60 through 66

### WHERE DO WE BEGIN?

#### CHAPTER 101

#### DEPARTMENT OF COMMERCE—REGULATION OF INDUSTRY, BUILDINGS AND SAFETY

	SUBCHAPTER I REGULATION OF INDUSTRY: GENERAL PROVISIONS	101.65 101.651	Municipal authority. Special requirements for smaller municipalities.	
101.01	Definitions.	101.653	Construction site erosion control.	
101.02	Powers, duties and jurisdiction of department.	101.654	Contractor financial responsibility certification.	
101.025	Ventilation requirements for public buildings and places of employment.	101.66	Compliance and penalties.	
101.027	Energy conservation code for public buildings and places of employ-		SUBCHAPTER III	
	ment.		MANUFACTURED BUILDING CODE	
101.03	Testimonial powers of secretary and deputy.	101.70	Purpose.	
101.05	Exempt buildings and projects.	101.71	Definitions.	
101.055	Public employee safety and health.	101.715	Application.	
101.07	Flushing devices for urinals.	101.72	Dwelling code council.	
101.09	Storage of flammable, combustible and hazardous liquids.	101.73	Departmental duties.	
101.10	Storage and handling of anhydrous ammonia.	101.74	Departmental powers.	
101.11	Employer's duty to furnish safe employment and place.	101.745	Smoke detectors.	
101.111	Excavations; protection of adjoining property and buildings.	101.75	Inspections, insignia and alterations.	
101.12	Approval and inspection of public buildings and places of employment	101.76	Municipal authority.	
	and components.	101.761	Certain municipalities excepted.	
101.1205	Erosion control; construction of public buildings and buildings that are	101.77	Penalties.	
	places of employment.		SUBCHAPTER IV	
101.121	State historic building code.	INSPECT	INSPECTION OF ELECTRICAL CONSTRUCTION AND CERTIFICATION OF	
101.1215	Abrasive cleaning of historic buildings.		MASTER ELECTRICIANS, CONTRACTORS, JOURNEYMEN AND BEGIN-	
101.122	Rental unit energy efficiency.		NING ELECTRICIANS	
101.123	Smoking prohibited.	101.80	Definitions.	
101.124	Heated sidewalks prohibited.	101.82	Departmental duties.	
101.125	Safety glazing in hazardous locations.	101.84	Departmental powers.	
101.126	Recycling space.	101.86	Municipal authority.	
101.127	Building requirements for certain residential facilities.	101.865	Regulation of electric wiring.	
101.128	Restroom equity.	101.87	Certification.	
101.13	Physically disabled persons; place of employment and public building	101.88	Compliance and penalties.	
101 132	requirements.		SUBCHAPTER V	
101.132	Physically disabled persons; housing requirements.		WANTER CELIBED HOMES AND MODILE HOMES	

### **FROM LAW TO ADMINISTRATIVE RULES...**

#### WISCONSIN ADMINISTRATIVE CODE COMPOSITE TABLE OF CONTENTS

Comm	Commerce
<u>Ch. 1</u>	Environmental Analysis and Review Procedures for Department Actions PDF
<u>Ch. 2</u>	Fee Schedule PDF
<u>Ch. 3</u>	Petition for Variance Procedures PDF
<u>Ch. 5</u>	Licenses, Certifications and Registrations
<u>Ch. 7</u>	Explosive Materials
<u>Ch. 8</u>	Mines, Pits and Quarries PDF
<u>Ch. 9</u>	Manufacture of Fireworks PDF
<u>Ch. 10</u>	Flammable and Combustible Liquids
<u>Ch. 14</u>	Fire Prevention
<u>Ch. 16</u>	Electrical PDF
<u>Ch. 18</u>	<u>Elevators</u>

#### Chapter Comm 14

#### FIRE PREVENTION

Subchapter I — Scope and Application Comm 14:001 Purpose of code. Comm 14:002 Scope. Comm 14:003 Application. Comm 14:003 Application. Comm 14:004 Adoption of model fire code. Comm 14:005 Fees. Subchapter II — Responsibilities, Appeals, Petitions and Penalties Comm 14:006 Owner's responsibility. Comm 14:006 Appeals. Comm 14:007 Appeals. Comm 14:008 Petition for variance. Comm 14:009 Penalties. Comm 14:001 Penalties. Subchapter III — Changes. Additions or Omissions to NFPA 1 - Fire Preven-	Comm 14.06 Comm 14.07 Comm 14.08 Comm 14.16 Comm 14.17 Comm 14.21 Comm 14.23 Comm 14.29 Comm 14.28 Comm 14.29 Comm 14.30	Building services. Fire protection systems. Seating. Fireworks, model rocketry and explosives. Flammable and combustible liquids. Liquefied petroleum gases and liquefied natural gases. Mechanical refrigeration. Manufactured home and recreational vehicle sites. Refueling. Hose threads. Service stations and repair garages. Grandstands, bleachers, folding and telescopic seating, tents and membrane structures.
Subchanter		V — Fire Department Duties

#### Chapter Comm 61

#### ADMINISTRATION AND ENFORCEMENT

Subchapter I — Scope and Application Comm 61.01 Purpose of code. Comm 61.02 Scope. Comm 61.03 Application. Comm 61.04 Definitions. Comm 61.05 Adoption of the International Codes.	Comm 61.34 Sprinkler documents. Comm 61.35 Revocation of approval. Comm 61.36 Expiration of plan approval and extension of plan approval. Comm 61.37 Department limitation. Comm 61.38 Construction documents for fire apparatus access. Comm 61.39 Registration of cross connection control devices.
Comm 61.06 Fees.  Subchapter II — Responsibilities, Appeals, Petitions and Penalties Comm 61.15 Construction site soil erosion control. Comm 61.20 Appeals. Comm 61.21 Appeals. Comm 61.23 Petition for variance. Comm 61.30 Plan review and Related Functions Comm 61.30 Plans. Comm 61.31 Plans. Comm 61.32 Permission to start construction. Comm 61.33 Evidence of plan approval.	Subchapter IV — Multifamily Building Permits Comm 61.40 Wisconsin uniform multifamily building permit.  Subchapter V — Supervision and Inspections Comm 61.50 Supervision. Comm 61.51 Inspections.
	Subchapter VI — Product and Standard Review and Approval Comm 61.60 Building product approvals. Comm 61.61 Alternate standards. Subchapter VII — First Class City and Certified Municipality Approvals Comm 61.70 Certified municipalities and counties. Comm 61.71 Appointed agents.

#### Chapter Comm 5

Comm 14.47 Fire chief and fire department duties. Subchapter V - Fire Department Dues Program

Comm 14.48 Fire department dues.

LICENSES, CERTIFICATIONS AND REGISTRATIONS					
	Comm 5.54 Comm 5.55 Comm 5.56	Sprinkler maintenance contractors. Sprinkler maintenance fitters. Sprinkler testers.			
n of standards by reference.  Subchapter VI — Inspection					
equirements	Comm 5.60	Boiler-pressure vessel inspectors.			
•	Comm 5.61	Commercial building inspectors.			
	Comm 5.62	Commercial electrical inspectors.			
variance.	Comm 5.625	Commercial plumbing inspectors.			
mes.	Comm 5.63	Dwelling inspectors.			
	Comm 5.635	UDC inspection agency.			
	Comm 5.64	Elevator inspectors.			
	Comm 5.66	POWTS inspectors.			
education.	Comm 5.67	Rental weatherization inspectors.			

Comm 5.07 Renewal. Comm 5.08 Continuing Comm 5.09 Examinations. Comm 5.68 Tank system inspectors. Comm 5.10 Denial, suspension and revocation. Subchapter VII - Mechanical Comm 5.11 Responsibilities. Comm 5.70 HVAC contractors. Comm 5.12 Penalties.

### Comm 61.01 Purpose of code.

 Pursuant to various statutory provisions under subch. I of ch. 101, Stats., the purpose of this code is to protect the health, safety and welfare of the public and employees by establishing minimum standards for the design, construction, maintenance and inspection of public buildings, including multifamily dwellings, and places of employment. 56

#### Subchapter I — Scope and Application

Comm 14.001 Purpose of code. Pursuant to statutory provisions under ch. 101, Stats., the purpose of this code is to protect the public, employees, firefighters and property from the hazards of fire and explosion by establishing minimum standards for the use, operation, maintenance and inspection of buildings, structures and premises.

**History:** CR 00–179: cr. Register December 2001 No. 552, eff. 7–01–02.

**Comm 14.002 Scope. (1)** Except as provided in subs. (2) and (3), this code applies to all public buildings and places of employment.

#### Subchapter I — Scope and Application

**Comm 61.01 Purpose of code.** Pursuant to various statutory provisions under subch. I of ch. 101, Stats., the purpose of this code is to protect the health, safety and welfare of the public and employees by establishing minimum standards for the design, construction, maintenance and inspection of public buildings, including multifamily dwellings, and places of employment.

**History:** CR 00–179: cr. Register December 2001 No. 552, eff. 7–1–02.

**Comm 61.02 Scope. (1)** Except as provided in subs. (2) and (3), this code applies to all public buildings and places of employment.

### Comm 61.02 Scope.

• (1) Except as provided in subs. (2) and (3), this code applies to all public buildings and places of employment.

### Exemptions (2) and (3)

- Some of the excemption are directly from within the Statutes [Refer to (2)]
- Others were created by Administrative Rule [Refer to (3)]

### Exemption (2) [Statute]

- Some CBRF's and Adult Family Homes
- 1 & 2 Family Homes
- Farm Buildings on the farm premises are not places of employment
- Bed and Breakfasts as defined
- Research farm buildings of public universities or State agencies
- Renovations of the State Capitol Building
- Rural (i.e. one-room school house) school

### Exemption (3) [Adm. Rule]

- Some public use of Farm Bldgs on the farm premises
- Federal Laws
- Buildings on Indian Reservations
- Some Off-Reservation buildings owned by tribes/tribal members
- Some bldg's/struct's used for const. purposes
- Some spaces within bldg's leased to Fed's
- One or two family dwellings used as:
  - Small foster home; small treatment foster home; small group home; small child care institution, small day care or when used as home occupation

### Exemption for Religious Facilities

- There are no exemptions for facilities based solely on ownership by faith communities whether Catholic or Amish; Baptist or Mennonite . . .
- Exemptions are based only upon the various building types previously mentioned [Farm Buildings, One-room School buildings, etc.]

### Comm 61.03 Application.

- (1) STANDARDS
- (2) RETROACTIVITY
- (3) CONFLICTS
- (4) DEPARTMENT AUTHORITY

### Comm 61.03 Application.

- (5) LOCAL ORDINANCES
- (6) ALTERNATIVES
- (7) NEW BUILDINGS AND STRUCTURES
- (8) ALTERATIONS
- (9) REPLACEMENTS

### Comm 61.03 Application.

- (10) REPAIRS
- (11) CHANGE OF OCCUPANCY OR USE
- (12) TEMPORARY USE
- (13) EXISTING BUILDINGS AND STRUCTURES
- (14) INTERNATIONAL FIRE CODE

# Ch. Comm 61.03 – Existing Buildings

- In the section on "existing buildings" we reference the ICC standard [ICC 300] on bleachers [Comm 61.03(13)(b)]
- Includes the yearly maintenance that is expected as well as other "retroactive" provisions

# Ch. Comm 61.03 – Existing Buildings (cont)

## Icc Rigy sions found in Ch 5 of the

- standard:
  - Yearly Inspn's [s. 501]
  - Maintenance [s. 502]
- Guards s. 503]
- Child Opening Protect'n [s. 504]

An American National Standard ICC/ANSI 309-2002

### Comm 61.04 Definitions

- (1) "Authorized representative"
- (2) "Department"
- (3) "Dwelling unit"
- (4) "Multifamily dwelling"
- (5) "HVAC"
- (6) "This code"
- (7) "IEBC and International Existing Building Code"

# Comm 61.05 Adoption of the International Codes

- (1) IBC.
- (2) IECC
- (3) IMC
- (4) IFGC
- (5) IEBC
- \*Comm 60



### Comm 61.06 Fees

• Comm 2

# Comm 61.115 Construction site soil erosion control



• Comm 60?

### Comm 61.20 Responsibilities



- (1) OWNER
- (2) DESIGN

#### Comm 61.21 Appeals

- (1) APPEAL OF DEPARTMENT ORDER
- (2) APPEAL OF LOCAL ORDER.
- (3) CONTESTED CASE HEARING.
- (4) PETITION OF ADMINISTRATIVE RULE

# Comm 61.22 Petition for variance

• Comm 3

### Chapter Comm 61 Subchapter III

```
    Comm 61.30 Plan review and approval.
    Comm 61.31 Plans.
    Comm 61.32 Permission to start construction.
    Comm 61.33 Evidence of plan approval.
    Comm 61.34 Sprinkler documents.
    Comm 61.35 Revocation of approval.
    Comm 61.36 Expiration of plan approval and extension of plan approval.
```

**Comm 61.37** Department limitation.

**Comm 61.39** Registration of cross connection control assemblies.



There is NO (Nyet, NIX, did I say NO yet) requirement that a plan has to be submitted to gain an approval for a change in use . . . <u>NEVER WAS</u>.

Submittal requirements exist only for the plans of the alteration work that is often affiliated with a request for approval to change a use.

# Comm 61.30 Plan review and approval

• (1) TYPES OF BUILDINGS. (a) Except as provided in par. (b), the construction of, the alteration of or the addition to a public building or a place of employment may not commence unless plans for the project have been submitted to and approved by department or its authorized representative in accordance with s. Comm 61.31.

### Comm 61.30 (1)(a) Plan Rev's (cont)

- (1) TYPES OF BUILDINGS. (a) ... the construction of, the alteration of or the addition to a public building ...
- I see the part about the submittal of plans for alterations, but where are the provisions for tenant build-outs?



There is no specific requirement regarding tenant build-outs . . . <u>NEVER HAS BEEN</u>

History goes back to mid 1980's with "code commentary" [1985]

Expanded in early 1990's when the certified municipality provisos [1991] expanded the size of authorized alt'ns [from vol. of bldg. to vol. of space]

#### **Tenant Build-Outs (cont)**

- Although there are no special provisions within the admin. rules that speak to tenant build-outs, they might exist and be spelled out within the agent delegation letter.
- Special provisos could be tailored to fit a special circumstance.
- None Currently Exist.

#### Plan Approval and Permits

 Even if not certified, be cognizant of the approval . . . Section 101.12 (3) (h), Stats., prohibits local issuance of permits or licenses for construction or use of public buildings or places of employment until the req'd construction doc's have been examined and approved by the department!

### Plan Review and Approval

 Are there plan review checklists that must be used and completed for all plans being approved by the S&B Div. staff or our Authorized

Representative?



There is no such requirement!



• Buildings Exempt from Plan Review

### Table 61.30–1 Buildings Exempt from Plan Review

Building Type or	
Occupancy	<b>Building Description</b>
Assembly Group A-2, A-3	
Business Group B	
Factory Group F	Containing less than 25,000 cubic feet in volume
Mercantile Group M	
Storage Group S	
Utility and Miscellaneous	
Group U	

 Buildings Exempt from Plan Review if Registered

#### Table 61.30-2

#### **Buildings Exempt from Plan Review if Registered**

Building Type or Occupancy	Building Description
Assembly Group A-2, A-3 Business Group B Factory Group F Mercantile Group M Storage Group S Utility and Miscellaneous Group U	Containing 25,000 to less than 50,000 cubic feet in volume
Assembly Group A-1, A-4, A-5 Educational Group E High Hazard Group H Residential Group R	Containing less than 25,000 cubic feet in volume

#### Medical & Care Facilities – Exempt?

- Are all medical or all care facilities exempt from plan review?
- The only exemptions are listed within the 2 aforementioned tables.

### Plan Submittal - Components

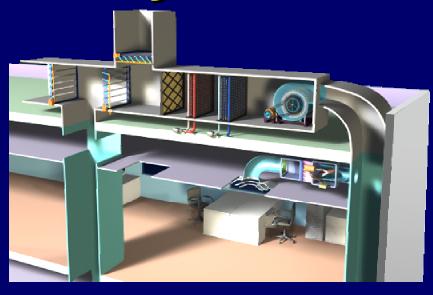
Table 61.30-3	
<b>Building Component or System</b>	Building Type or Occupancy
Premanufactured & Pre-engineered Structural Components	Public Buildings or Places of Employment
Heating Ventilating and Air Conditioning Systems	Public Buildings or Places of Employment
Fire Protection Systems	Atria in Public Buildings or Places of Employment
	Public Buildings over 60 ft. in Height
	Educational Group E
	Institutional Group I-1 & I-3
	Mercantile Group M buildings that combine retail sales areas with rack storage and have floor areas exceeding 50,000 S.F.
	Residential Group R-1 & R-2
	State owned buildings except hospitals and nursing homes.

### Components Pre-eng. Structural



**Components HVAC Systems** 



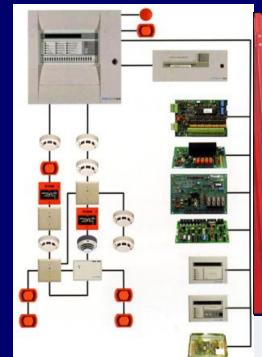






Components Fire Prot. Syst's.

















### Type I Kitchen Hood Clearances IMC 507.9

- Hood shall be installed a minimum of 18" from Combustible Construction (Including structure behind finish material).
  - Gypsum board <u>is considered combustible</u> in the IMC
  - May be installed tight to Gyp Bd on wall if a non-combustible material is installed between hood and wall. (Structure behind Gyp Bd must still be non-combustible). Material to extend 18" beyond hood surface in all directions.

# Type I Hood Exhaust Duct Clearance Requirements IMC 506.3.6

- Ducts serving Class I Hood are to be installed a minimum of 18" from Combustible Construction (Including structure behind finish material).
  - Gypsum board <u>is considered combustible</u> in the IMC
  - Ductwork may be within 3" of Gyp Bd wall surfaces if the structure supporting the Gyp Bd is non-combustible

# Type I Hood Exhaust Duct Grease Duct Enclosure IMC 506.3.10/IBC 707.2

- Base Reqm't is to provide a Fire-Resistive Rated shaft enclosure from the point of floor/ceiling penetration all the way up through the roof, as req'd by the IBC (1HR or 2HR depending upon number of connected stories).
- Commonly used alternative is the "ductwrap" system [refer to IMC 506.3.10, exc. 1].
- Less common, is the "grease duct enclosure" assembly [refer to IMC 506.3.10, exc. 2].

### Grease Duct Enclosure – Ductwrap IMC 506.3.10 exc. 1. (cont)

- Refer to Material Listing not all the same.
- ASTM E 2336
- 1 or 2 layers of wrap material may be required depending upon manufacturer
- Many wraps are listed as allowing "zero' clearance to combustibles". The listing MUST be followed before this clearance reduction is recognized as acceptable.
  - Example: Some wraps can only be used with welded or brazed seams – not seams with sealants



### TYPE I COMMERCIAL KITCHEN HOOD EXHAUST – DUCTWRAP INSTALLATION





- Refer to Listing not all the same.
- UL 2221
- Similar to Chimney



# 61.30 (4) EXCLUSION FOR MINOR ALTERATIONS.



### 61.30(4) MINOR ALTERATIONS

If you can understand the proposed project & agree that compliance can be achieved without having plans to work from, no plan submittal is needed

You do not have to be a certified insp. or muni to make the decision . . . just knowledgeable

**Document your decision!** 

# MINOR ALTERATIONS Consistency not Required

Knowledge of a buildings will vary from muni. to muni. & person to person . . . this proviso is more about ones individual intimacy to a building.

You don't have to require a submittal based on <u>our</u> lack of familiarity!

Contact Mr. Kosarzycki if you have questions on your authority.

103

#### Comm 61.31 Plans

- (1) SIGNING AND SEALING.
- (2) CONTENTS AND INFORMATION
- (3) APPLICATION FOR APPROVAL
- (4) REVISIONS TO APPROVED PLANS

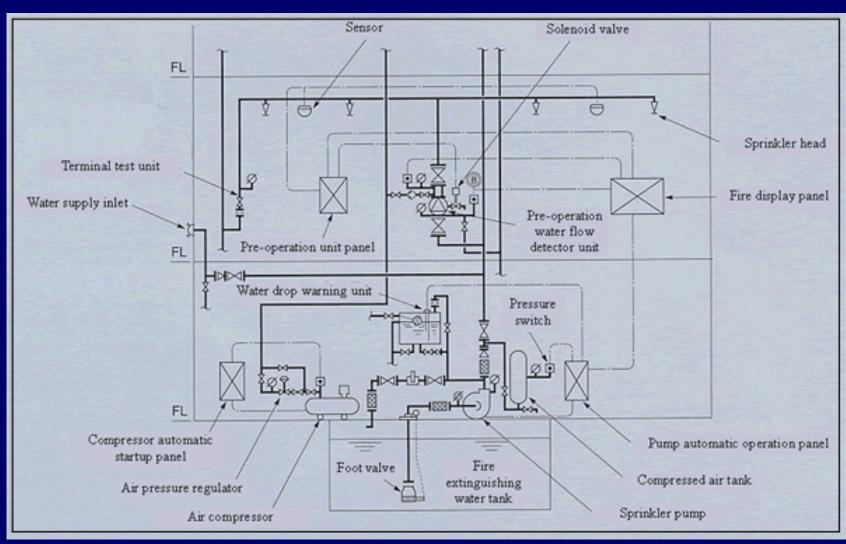
# Comm 61.32 Permission to start construction



# Comm 61.33 Evidence of plan approval



### Comm 61.34 Sprinkler Doc's



# Comm 61.35 Revocation of approval

## Comm 61.36 (2) (a) EXTENSION OF PLAN APPROVAL

- Except for (b), upon request and payment of the proper fees, the expiration dates in sub. (1) (b) to (f) may be extended provided the request is submitted prior to expiration of the original approval.
- (b) BEWARE CAUTION WARNING

## Comm 61.36 (2) (b) WARNING-WARNING



Secretary Leinenkugel

- Extension of approvals for certain Residential units is restricted to the discretion of the Secretary of the Department of Commerce.
- Multifamily Dwellings of 10 or fewer units and having an original approval date prior to January 1, 2011

## Comm 61.37 Department Limitation

A conditional approval of a plan by the department may not be construed as an assumption of any responsibility on the part of the department for the design or construction of the project.

## Comm 61.39 Registration of Cross Connection Control Assemblies.

#### Comm 61.40 Supervision

- (1) GENERAL
- **(2)** DUTIES
- (3) NAME OF SUPERVISING ARCHITECT, ENGINEER OR DESIGNER
- (4) COMPLIANCE STATEMENT

- Does the supervising professional have to visit or inspect the job site?
- There is no requirement that calls for the person listing themselves as "being responsible" to set foot on the job site. It is not uncommon for them to rely on their subordinates or project management companies to conduct the field work

- Does the Supervision have to take place by the Designer of record?
- Not usually . . . It is quite common for a separate professional to take on the supervision. One instance where they must be one in the same is if the "Registration" option from Comm 61.30(1)(b)2. is being utilized. Another is where they are a contractor invoking the exception from s. 443.14(6) Stats.

- Does the Supervising Professional have to submit a compliance statement and when is it to be filed?
- As outlined in Comm 61.40(4) the professional is to file a compliance statement [SBD-9720] with the authority that issued plan approval certifying that construction of the part to be occupied is in compliance. You will want to see such a statement before occupancy!

116

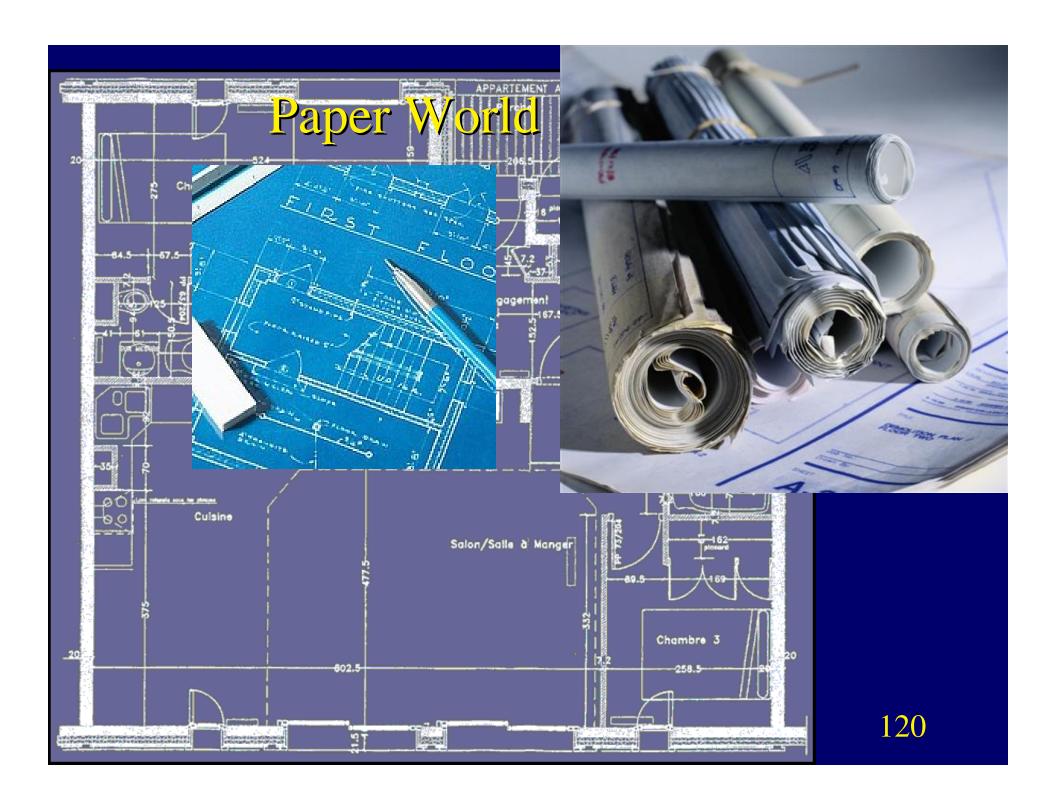
- (1) GENERAL
- (2) DUTIES
- (3) NAME OF SUPERVISING ARCHITECT, ENGINEER OR DESIGNER
- (4) COMPLIANCE STATEMENT

### Comm 61.41 Inspections

#### Inspections . . . . . . . . . . . . Hmmmmm

interesting concept







## Comm 61.50 Building product

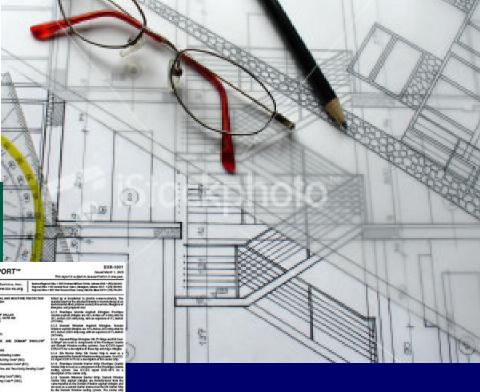
approvals





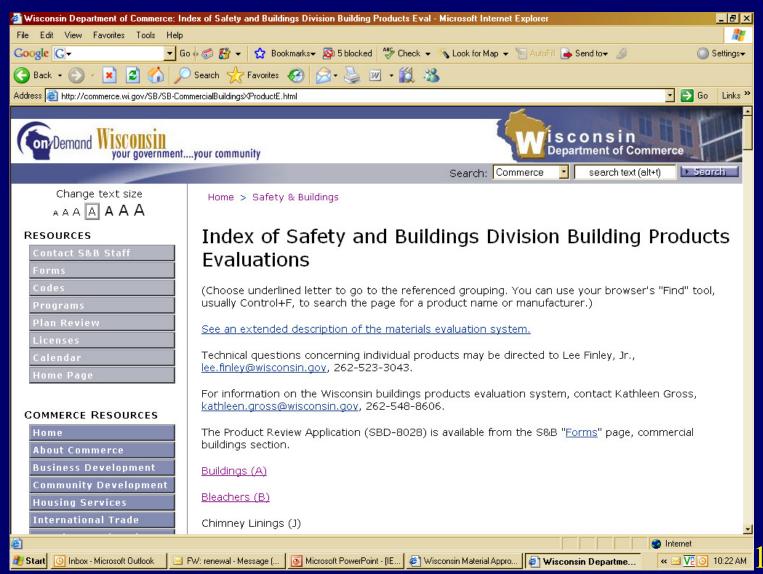
Ensuring that building products meet code requirement





Wisconsin

#### Commerce Bldg. Product Approvals



## Product Approvals ICC Evaluation Service



## Comm 61.60 Certified municipalities and counties

- (1) GENERAL. This section establishes the manner under which
- cities, villages, towns and counties may examine building plans
- and inspect buildings under s. 101.12 (3)
   (a), (am), (b) and (g),
- Stats.

## Comm 61.60 (2) CONDITIONS OF PARTICIPATION.

- (a) Before assuming the responsibilities of examining building plans and providing inspection services, cities, villages, towns and counties shall comply with all of the following:
- Includes criteria as to steps "before" as well as "during" participation

## Comm 61.60 (2) CONDITIONS BEFORE PARTICIPATION.

- Before 4 criteria
- 1. Notify the department, in writing, at least 30 days prior to the date upon which the municipality or county intends to assume the plan examination and building inspection responsibilities.
- 2. Employ CBI's to perform tasks

## Comm 61.60 (2) BEFORE PARTICIPATION (cont)

- 3. Forward to the department any information requested by the department relative to examination of plans and inspection of buildings.
- 4. Receive the delegation letter outlining participation

## Comm 61.60 (2) CONDITIONS "WHILE" Certified

- While certified 3 criteria
- 1. Retain those employed certified CBI's building inspectors to perform the delegated tasks.
- 2. Forward to the department any information requested by the department relative to examination of plans and inspection of buildings.

## Comm 61.60 (2) CONDITIONS "WHILE" – 3 criteria (cont)

• 3. Give us a heads-up . . . Notify the department, in writing, at least 30 days prior to the date upon which the municipality or county intends to relinquish the plan examination and building inspection responsibilities.

## Comm 61.60 (2) CONDITIONS OF PARTICIPATION.

(c) Second class cities

## Comm 61.60 (2) CONDITIONS OF PARTICIPATION.

• (d) 1. To assume the building inspection responsibility but not the plan examination responsibility

## Comm 61.60 (3) JURISDICTION.

## Comm 61.60 (4) CERTIFICATION OF INSPECTORS

## Comm 61.60 (5) PLAN EXAMINATION.

## Comm 61.60 (6) INSPECTION.

### Comm 61.60 (7) FEES

## Comm 61.61 Appointed agents

#### Smoke Curtains and the WCBC

- Smoke Curtains What are they and where are they required?
- Does the WCBC have Smoke Curtain requirements?
- IBC s. 410.3.5 Proscenium curtain.
- IBC s. 910.3.5 Draft curtains.
- IBC s. 707.2 Exc. 2, Option 2.1 Draft Curtains with Closely Spaced Sprinkler Heads

#### Smoke Curtains (cont)

• IBC s. 410.3.5 - Proscenium curtain.



#### **Smoke Curtains (cont)**

#### [F] TABLE 910.3 REQUIREMENTS FOR DRAFT CURTAINS AND SMOKE AND HEAT VENTS<sup>3</sup>

OCCUPANCY GROUP AND COMMODITY CLASSIFICATION	DESIGNATED STORAGE HEIGHT (feet)	MINIMUM DRAFT CURTAIN DEPTH (feet)	MAXIMUM AREA FORMED BY DRAFT CURTAINS (Square feet)	VENT-AREA- TO-FLOOR- AREA RATIO <sup>©</sup>	MAXIMUM SPACING OF VENT CENTERS (feet)	MAXIMUM DISTANCE TO VENTS FROM WALL OR DRAFT CURTAINS <sup>b</sup> (feet)
Group F-1 and S-1	_	0.2 × H <sup>d</sup> but ≥ 4	50,000	1:100	120	60
High-piled Storage (see Section 910.2.3) I-IV (Option 1)	≤ 20	6	10,000	1:100	100	60
	> 20 ≤ 40	6	8,000	1:75	100	55
High-piled Storage (see Section 910.2.3) I-IV (Option 2)	≤ 20	4	3,000	1:75	100	55
	> 20 ≤ 40	4	3,000	1:50	100	50
High-piled Storage (see Section 910.2.3) High hazard (Option 1)	≤ 20	6	6,000	1:50	100	50
	> 20 ≤ 30	6	6,000	1:40	90	45
High-piled Storage (see Section 910.2.3) High hazard (Option 2)	≤ 20	4	4,000	1:50	100	50
	> 20 ≤ 30	4	2,000	1:30	75	40

For SI: 1 foot = 304.8 mm, 1 square foot =  $0.0929 \text{ m}^2$ .

- a. Requirements for rack storage heights in excess of those indicated shall be in accordance with Chapter 23 of the *International Fire Code*. For solid-piled storage heights in excess of those indicated, an approved engineered design shall be used.
- b. The distance specified is the maximum distance from any vent in a particular draft curtained area to walls or draft curtains which form the perimeter of the draft curtained area.
- c. Where draft curtains are not required, the vent-area-to-floor-area ratio shall be calculated based on a minimum draft curtain depth of 6 feet (Option 1).
- d. "H" is the height of the vent, in feet, above the floor.

IBC s. 910.3 Design and installation of **Draft Curtains** associated with smoke & heat vents IBC Table 910.3

#### Smoke Curtains (cont)



# Welling Units

#### LEVELS OF ACCESSIBILITY

#### **Accessible Units**

Complete Usability to individuals in a wheel chair

#### **Type A Units**

Usable to individual in a wheel chair when modified

#### Type B Units

- Minimal Usability

### ICC/ANSI A117.1 Chs 1-9 ACCESSIBLE DWELLING UNITS

- Accessible units
  - ICC/ANSI A117.1 Chapters 1 to 9
  - Designs must provide for accessibility from the date of occupancy

### ACCESSIBILE UNITS FOR "RESIDENTIAL" USE GROUPS

**Group I-1 – 4% with at least one (Others Type B) Group I-2 Nursing Homes** – 50 % (Others Type B) **Group I-2 Hospital - 10 % (Remainder Type B) Group I-2 Rehab Facilities - 100 % Group I-3 - 5% Group R-1** – See Table 1107.6.1.1 (Others Type B) Group R-2 other than Apt's, Monastaries and **Convents - See Table 1107.6.1.1 (Others Type B) Group R-4** – At least one (Others Type B)

Refer to IBC s. 1107.7 for General Exceptions when allowed

### ICC/ANSI A117.1 Chapter 10 TYPE A UNITS – Section 1002

#### Type A dwelling and sleeping units

- -ICC/ANSI A117.1 Chapter 10 (1002)
- -When modified will provide accessibility

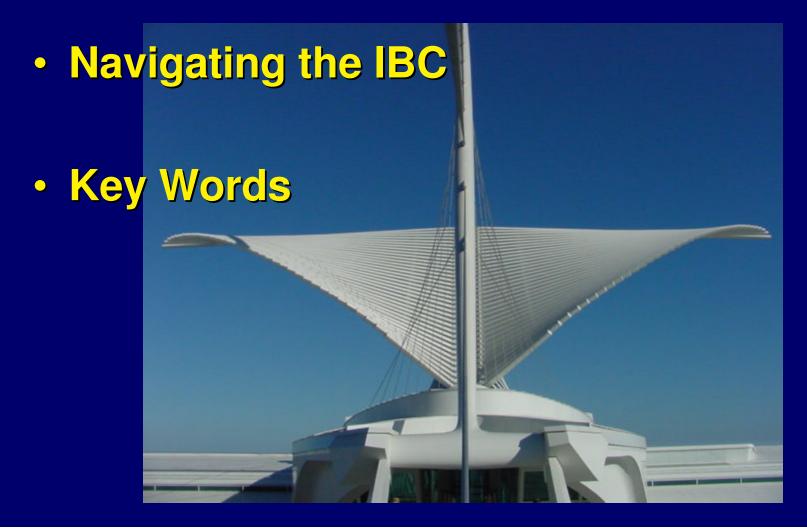
### ICC/ANSI A117.1 Chapt 10 TYPE B UNITS - Section 1003

- Type B dwelling units:
  - -ICC/ANSI A117.1 chapter 10 (1003)
  - When modified will provide limited usability
  - -Consistent with the federal and state fair housing laws

### R-2 Apartment Bldgs., Monastaries & Convents

- When over 20 Dwelling Units (Don't count existing Units) are on the site, at least 2% are to be Type A Units
- Remainder to be Type B Units
- Refer to IBC s. 1107.7 for General Exceptions

#### **Way Finding**

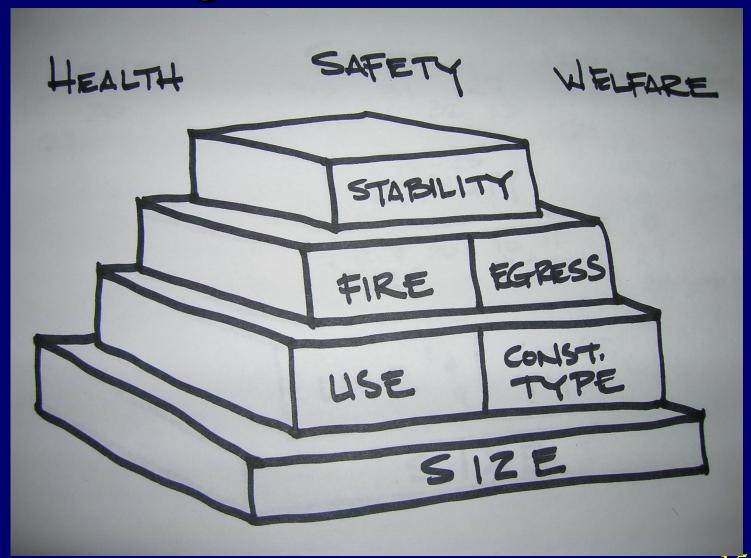


### **Building Code Foundation**

### Foundation For Commercial Building Code Application

- What is the Building Use?
- What is the Building Made Of?

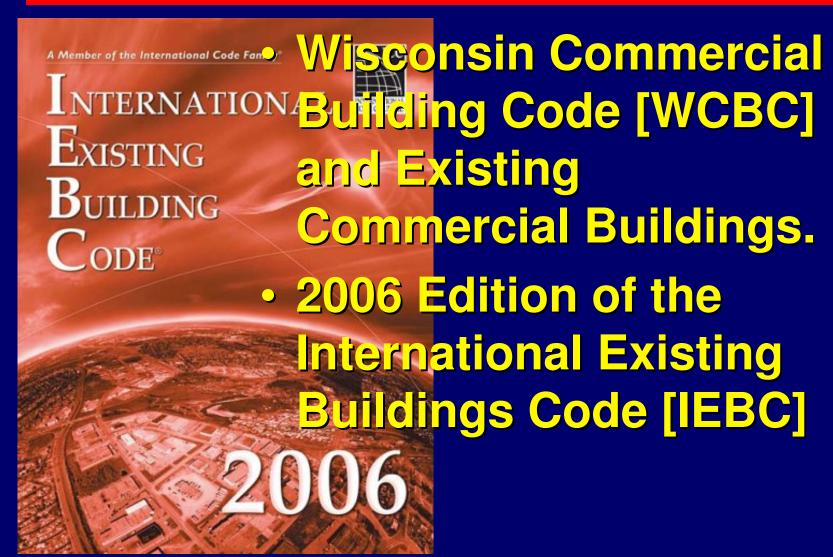
### **Building Blocks**



### **Building Blocks**



### What's this IEBC thing about?



### What's in the "new" WCBC

Soil Erosion	Ch. Comm 60
Administration	Ch. Comm 61
Building	Ch. Comm 62
Energy	Ch. Comm 63
Mechanical	Ch. Comm 64
Fuel Gas	Ch. Cemm 65
<b>Existing Building</b>	Ch. Comm 66

### WCBC Navigating Wisconsin Modifications

 Deciphering the Numbering of Adm. Rule Ch's Comm 62 - 66

Refers to IEBC Land Refers to section 158

### The Exist'g. Bldg. part of WCBC – <u>USE</u> IEBC

• As indicated earlier, the IEBC [Comm Chapter 66] is to be used for all work relating IDG existing buildings.

Building

IBC Ch 34 is dropped.

 Dropped the Historic Buildings code, Comm 70

### WCBC/Exist'g Bldg. [IEBC] (cont.)

- Ch 1 Administration (WI)
- Ch 2 Definitions (WI)
- Ch 3 Presc. Compl. Methods (WI)
- Ch 4 Classification of Work
- Ch 5 Repairs (WI)
- CH 6, 7 & 8 Altn's (Lev 1, 2 & 3) (WI)
- CH 9 Change of Occupancy (WI)<sub>160</sub>

### WCBC/Exist'g Bldg. [IEBC] (cont.)

- Ch 10 Additions
- Ch 11 Historic Buildings (W)
- Ch 12 Relocated/Moved Bldgs
- Ch 13 Perf. Compl. Methods (W)
- CH 14 Construction Safegaurds
- CH 15 Referenced Standards

#### **IEBC Wisconsinisms CH 1**

 Comm 66.0100 Changes, additions or omissions to IEBC. Changes, additions or omissions to the IEBC are specified in this subchapter and are rules of the department and are not requirements of the IEBC.

### IEBC Wisconsinisms CH 1 Note on State Fair Housing Law

 Note: The requirements of s. 101.132, Stats., may be more restrictive than the administrative rules when a project involves the remodeling of housing. The term "remodeled" has the meaning given in s. 101.132 (1) (h), Stats., and the term "housing" has the meaning given in s. 106.50 (1) (L), Stats.

### IEBC Wisconsinisms CH 1 State Fair Housing Law Scenarios

- Section 101.132 Stats., incl's 4 basic reqmt's for housing:
- 1. An accessible entrance
- 2. Accessible public/common use areas
- 3. Accessible doors & int. passage
- 4. Accessible features like accessible controls, grab bar reinf. & lever handles

## IEBC Wisconsinisms CH 1 State Fair Housing Law and Remodeling

 Section 101.132 (2) (b), Stats., provides requirements for 3 different remodeling scenarios based on the percentage of the floor areas being physically altered

### Fair Housing Law Remodeling Scenario 1

• 1. If more than 50% of the interior square footage of any housing with 3 or more dwelling units (D.U.'s) is to be remodeled, the entire housing shall conform to the standards in par. (a), regardless of when first intended for occupancy.

### Fair Housing Law Remodeling Scenario 2

 2. If 25% to 50% of the interior square footage of any housing with three or more (D.U.'s) is to be remodeled, that part of the housing that is to be remodeled shall conform to the standards in par. (a), regardless of when first intended for occupancy.

### Fair Housing Law Remodeling Scenario 3

• 3. If less than 25% of the int. square footage of any housing with three or more D.U.'s is to be remodeled, the remodeling is not subject to the standards in par. (a) unless the alt'n involves work on doors, entrances, exits or toilet rooms, in which case the doors, entrances, exits or toilet rooms shall conform to the standards in par. (a) regardless of when first intended for occupancy.

#### **IEBC Wisconsinisms CH 2**

- Comm 66.0202 General definitions.
- (1) ADDITIONS. This is a department definition for this chapter in addition to the definitions in IEBC section 202: "Exhibit building" means a qualified historic building that is open to the general public only for display or tours.
- (2) SUBSTITUTIONS. Substitute the following definition for the corresponding definition in IEBC section 202: "Historic building" means a "qualified historic building" as defined under s. Comm 62.0202 (2) (c). [takes users to s. 101.121 (2) (c), Stats.]

#### Stats – Qualified Historic Building

- Section 101.121 (2) (c) "Qualified historic building" means a historic building meeting any one of 5 criteria:
- 1. Is listed on, or has been nominated by the state historical society for listing on, the national register of historic places in WI or the state register of historic places - or
- 2. Is included in a district which is listed on, or has been nominated by the state historical society for listing on, the national register of historic places in WI or the state register of historic places, and has been determined by the state historical society to contribute to the historic significance of the district - or

#### Stats – Qual. Hist. Bld'g (cont)

- 2m. Is determined by the state historical society to be eligible for listing on the national register of historic places in WI or the state register of historic places - or
- 3. Is listed on a certified local register of historic property - or
- 4. Is included in a district which is listed on a certified local register of historic property, and has been determined by the city, village, town or county to contribute to the historic significance of the district

#### **IEBC Ch 2 Definitions**

Chapter 2 includes 21 definitions, but several are more significant than others

- Change of Occupancy . . .
- Primary Function . . .
- Work Area...

#### Def. – Change of Occupancy

CHANGE OF OCCUPANCY. A change in the purpose or level of activity within a building that involves a change in application of the requirements of this code.

### **Def. – Primary Function**

PRIMARY FUNCTION. A primary function is a major activity for which the facility is intended. Areas that contain a primary function include, but are not limited to, the customer services lobby of a bank, the dining area of a cafeteria, the meeting rooms in a conference center, as well as offices and other work areas in which the activities of the public accommodation or other private entity using the facility are carried out. Mechanical rooms, boiler rooms, supply storage rooms, employee lounges or locker rooms, janitorial closets, entrances, corridors and restrooms are not areas containing a primary function. 174

#### Def. – Work Area

**WORK AREA. That portion or portions of** a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.

#### **IEBC Wisconsinisms CH 3**

Comm 66.0300 – Don't use Chapter
 3 of the IEBC in Wisconsin



### IEBC Ch 3 – Presc. Compl. Meth.

- **301 General [WI]**
- 302 Additions, Altn's or Repairs
- 303 Fire Escapes
- 304 Glass Replacement
- 305 Change of Occupancy
- 306 Historic Buildings
- 307 Moved Structures
- 308 Accessibility

### Chapter 4 Classification of Work

- 401 General
- 402 Repair
- 403 Alteration-Level 1
- 404 Alteration-Level 2
- 405 Alteration-Level 3
- 406 Addition
- 407 Change of Occupancy
- 408 Relocated or moved buildings
- 409 (Qualified) Historic Bldg's



# 

### More than one classification Will generally exist for each project!

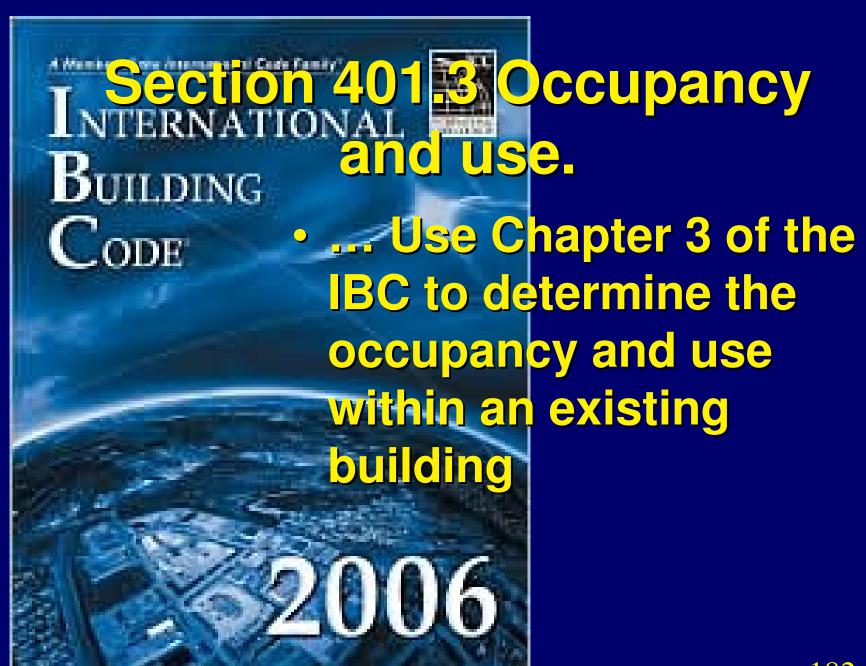
#### **Section 401 - General**

401.1 Scope. ... use this in conjunction with Ch 5 – 12 and explains how to apply the IEBC to alterations, repairs, additions and the changes of occupancy that happen to virtually all existing structures...

#### Section 401.2 Work area.

• ...Work area is that portion [or portions] of a building consisting of all reconfigured spaces indicated on the construction documents.





## Section 402.1 Repairs

Repairs are the restoration to good or sound condition of any part of an existing building for the purpose of its maintenance.

## Section 403 Alteration – Level 1

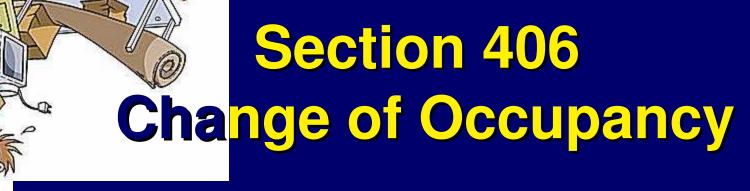
 403.1 Scope: Level 1...the removal and replacement of the covering of existing materials, elements, equipments or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose

## Section 404 Alteration – Level 2

- 404.1 Scope: Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.
- Level 2 alterations to also meet the Level 1 provisos 185

## Section 405 Alteration — Level 3

- 405.1 Scope: Level 3 alterations apply where the work area exceeds
   50 percent of the aggregate area of the building.
- Level 3 alterations must also meet the provisions for Level 1 and 2 alterations

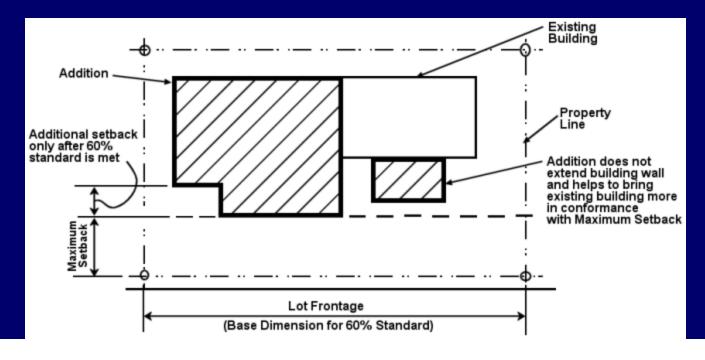


 406.1 Scope - Change as defined in Ch 2...purpose or level of activity within a building that involves a change in application of the requirements of this code.

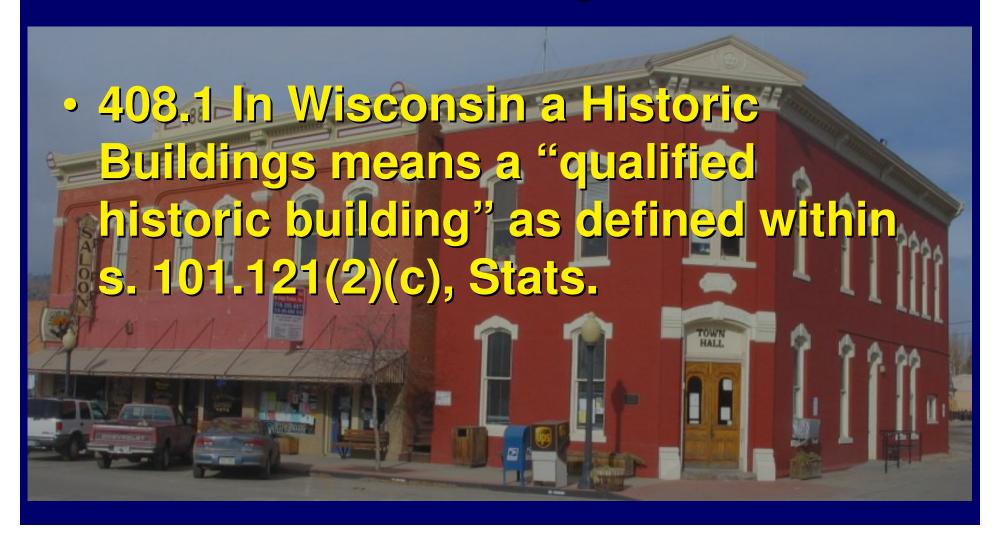


#### **Section 407 Additions**

 407.1 Scope Provisions for additions ... an extension or increase in floor area, number of stories, or height of a building.



## Section 408 Historic Buildings



## Section 408.2 Application



## Section 409 Relocated Buildings

 409.1 Scope: Existing Commercial Buildings that are relocated or moved buildings will follow Ch 12



#### **IEBC Wisconsinisms CH 5**

- Comm 66.0506 Structural evaluation. The requirements in IEBC sections 506.2 to 506.2.5 are <u>not</u> included as part of this code.
- Comm 66.0509 Plumbing. The requirements in IEBC section 509 are <u>not</u> included as part of this code.

## **IEBC Ch 5 - Repairs**

- SECTION 501 GENERAL
- SECTION 502 BUILDING ELEMENTS AND MATERIALS
- SECTION 503 FIRE PROTECTION
- SECTION 504 MEANS OF EGRESS
- SECTION 505 ACCESSIBILITY
- SECTION 506 STRUCTURAL [WI]
- SECTION 507 ELECTRICAL
- SECTION 508 MECHANICAL
- SECTION 509 PLUMBING [WI]

## IEBC Ch 5 - Repairs

- Approach
  - -With a few specific exceptions, repairs may be made with like similar materials, even if those materials are no longer permitted by the International C

# IEBC & WCBC/IBC Ch-15 Reroofing

- Repairs [IEBC Ch 5] & Alterations [IEBC Ch 6]
- For Repairs, use materials that are the same as being repaired, or use the materials as permitted by the IBC [IEBC s. 501.2].

# Reminder Ch. Comm 61 Existing Buildings

- We reference the ICC standard [ICC 300] on bleachers in the section on "existing buildings" [Comm 61.03(13)(b)]
- Includes the yearly maintenance that is expected as well as other "retroactive" provisions

## WCBC/IEBC Reroofing (cont.)

Reroofing - Altns [IEBC Ch 6]

 Use the same materials as permitted by the IBC [IEBC s.

602.3].





## WCBC/IEBC Reroofing (cont.)

- Reroofing Altns [IEBC Ch 6]
- Regarding Structural, remember the exceptions when the DL is not

increased by more than 5% or if the second cover is less than 3#

[IEBC \$. 606.2.1]

## WCBC/IEBC Reroofing (cont.)

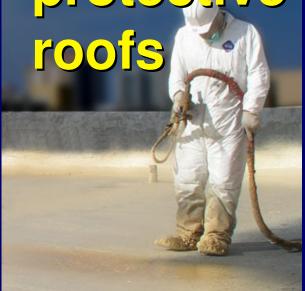
 The Reroofing must meet the energy conservation [IECC] requirements of the WCBC [Comm 66.0607] except where the roof is not exposed and the energy use of the building is not increased.

# WCBC/IBC Chapter 15 Noteworthy Changes

 1510 Reroofing – Added an exception to the tear off restriction

- Will not have to tear off a new

protective coating on spray foam





#### IEBC CH 6

- 601 General
- 602 Building Elements (W)
- 603 Fire Protection
- 604 Means of Egress
- 605 Accessibility
- 606 Structural
- 607 Energy Conservation (W)

#### **IEBC Wisconsinisms CH 6**

 Comm 66.0602 Building elements and materials. (1) MATERIALS AND METHODS. Substitute the following wording for the requirements in IEBC section 602.3: All new work shall comply with materials and methods requirements in the ICC EC, IBC, IECC, IFGC, IMC, and IPC, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

#### IEBC Wisconsinisms CH 6 (cont)

- Comm 66.0602 Building elements and materials.
  - (2) INTERNATIONAL FUEL GAS CODE. The requirements in IEBC section 603.3.1 are not included as part of this code.

#### IEBC Wisconsinisms CH 6 (cont)

 Comm 66.0607 Energy conservation requirements. Substitute the following wording for the requirements in IEBC section 607.1: (1) ADDITIONS, ALTERATIONS, RENOVATIONS OR REPAIRS. Except as specified in sub. (2), additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of IECC as they relate to new construction without requiring the unaltered portions of the existing building or building system to comply with the IECC. Additions, alterations, renovations, or repairs shall not create an unsafe or hazardous condition or overload existing building systems.

#### IEBC Wisconsinisms CH 6 (cont)

- Comm 66.0607 Energy conservation reqmt's.
   What about those exceptions in sub. (2) ??
   (2) EXCEPTIONS. All of the following need not comply provided the energy use of the building is not increased:
- (a) Storm windows installed over existing fenestration.
- (b) Glass only replacements in an existing sash and frame.
- (c) Existing ceiling, wall or floor cavities exposed during construction provided that these cavities are filled with insulation.
- (d) Construction where the existing roof, wall or floor cavity is not exposed.

## IEBC.Ch 6 Alterations - Level 1

rations include replacement or the isting materials, ment, o material





### IEBC Ch 6 - Level 1 Alt's (cont)

#### Direction Given on subjects of:

- Bldg elements/Matl's [602 & WI]
- Fire Protection [603]
- Means of Egress [604]
- Accessibility [605]
- Structural [606]
- Energy Cons'n [607 & WI]

## Section 605.1 Accessibility

- Altered Buildings are to comply with the applicable provisions in Section 605.1.1 through 605.1.12, chapter 11 of the IBC and ICC A117.1... "unless technically infeasible". In which case... "to the maximum extent feasible".
- ...access to be maintained during occupancy.

209

### Section 605.1 Accessibility

#### Four Exceptions...



- 1. The Altered Element or space is not involving a primary function or affecting the accessible route to a primary function
- 2. IBC Accessible Means of Egress not required in existing buildings

#### **Section 605.1 Accessibility**

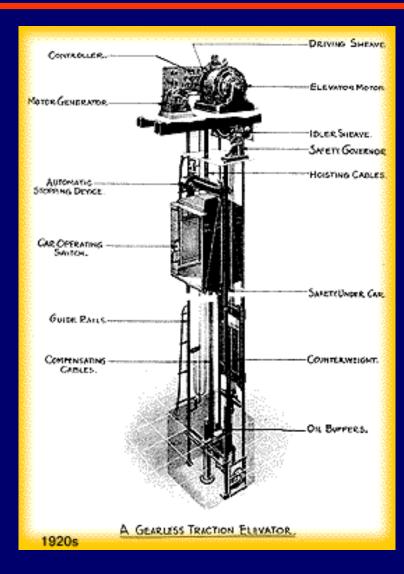
#### Four Exceptions (cont'd)...

- 3. Type B DU's/sleeping units need not be provided within existing buildings
- 4. When altering a Type A individually Owned DU's within an R-2, the unit needs to meet Type B provisions of IBC Ch. 11 & ICC ANSI A117.1.

#### **Section 605.1.1 Entrances**

...when altering an entrance and the building already has an accessible entrance on an accessible route, the altered entrance need not be made accessible unless called for by s. 605.2 ...[Alterations Affecting an Area Containing a **Primary Function.**]

#### **Section 605.1.2 Elevators**



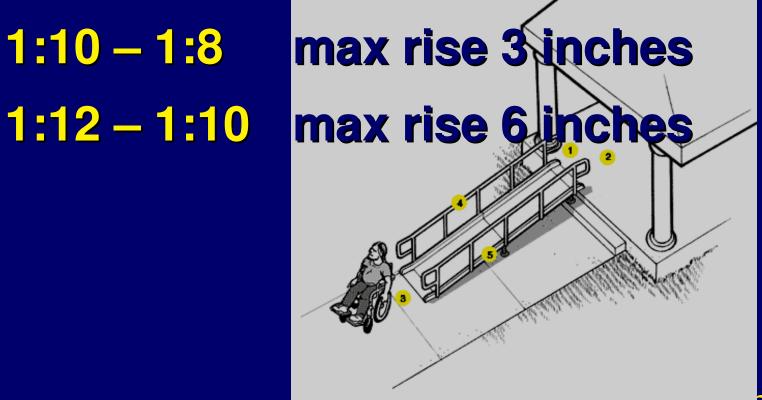
...altered elements shall comply with ASME A17.1 and ICC/ANSI A117.1...

### Section 605.1.3 Platform Lifts

...complying with ICC A117:1 and installed in accordance with ASME A18.1-shall be permitted as component-of accessible route

## Section 605.1.4 Ramps

...steeper than allowed in IBC 1010, reference table 605.1.4...



## **Section 605.1.5 Dining Areas**



access is NOT required to raised or sunken dining areas or outdoor seating areas provided the same service and decor exists in an accessible space.

...unlike new const'n.,

# Section 605.1.6 Performance Areas

...where technically infeasible to alter performance areas...at least one of each type shall be made accessible.

### Section 605.1.7 Jury boxes



### **Section 605.1.8 Dwelling Unit**

When altering I-1, I-2, I-3, R-1, R-2 or R-4... provisos of IBC 1107 for Accessible or Type A units and alarm provisos of IBC Ch. 9 apply only to the quantity of the spaces being altered.

(HC)

### **Section 605.1.9 Toilet Rooms**

...technical infeasibility will permit the unisex toilet room on the same floor in the same area...



### Section 605.1.10 Fitting Room

...technical infeasibility will permit one accessible room on same floor in same area permitted... When fitting rooms provided for separate sex, each to ha access as well.

### Section 605.1.11Thresholds

### ...3/4" maximum height with beveled edges.



# Section 605.1.12 Extent of Application ...

... Not to impose requirement for greater accessibility than that required for new construction

... Conversely, not to reduce accessibility.

# Section 605.2 Alterations Affecting Areas of Primary Function

...access to or areas containing a primary function...that route shall be accessible.

#### **Exceptions...**

- Disproportionate cost 20%
- Alts to windows, hardware, controls, etc.
- Alts to syst's like mech, elect, fire, etc
- alterations to increase accessibility

#### **Section 606 - Structural**

- In some cases, work on roofs can demand improving the roof structure or more analysis.
- Where the added DL is more than a 5% increase
- Previously mentioned second layer of roof covering that is up to 3 PSF

### Structural & Roof (cont)

- Make sure masonry parapets are braced if bldg. is Seismic Des.
   Category D, E, or F
- If the re-roofing requires more than a 50% tear-off, evaluate the deck diaphragm for deterioration . . . Repair as needed

### Exist'g Bldg's & Energy Existing Building Conference of the Confer Conservation

- [Comm 66.0607] Addn's, altn's, or repairs are to conform to the provisos of the IECC as they relate to new construction without requiring the unaltered portions of the existing building or building system to comply.
- The work cannot create an unsafe/hazardous cond'n or overload existing building systems.
- NOTE THE EXCEPTIONS . . . .

### Comm 66.0607 (cont)



- THE EXCEPTIONS. The following items do not have to comply as long as the energy use of the bld'g is not increased:
- Storm windows over exist'g windows.
- Glass replacement in an existing sash & frame.
- Exist'g ceiling/wall/floor cavities exposed during construction as long as the cavities are already insulated.
- Construction where the existing roof, wall or floor cavity is not exposed.

# IEBC Ch 7 - Level 2 Alt's Direction

### Direction Given on subjects of:

- General [701 & WI]
- Special Use/Occ'y [702]
- Build'g Elements/Matl's [703 & WI]
- Fire Protection [704]
- Means of Egress [705]

### IEBC Ch 7 — Direction (cont)

- Accessibility [706]
- Structural [707]
- Electrical [708]
- Mechanical [709 & WI]
- Plumbing [710 & WI]
- Energy Cons'n [711 & WI]

#### **IEBC Wisconsinisms CH 7**

- There are 4 sections of Chapter 7 that are modified. Sections 701, 709, 710 & 711.
- Comm 66.0701 Compliance. This is a
  department exception to the requirement in
  IEBC section 701.3: The installation or
  extension of an automatic sprinkler system
  may exclude the protection of combustible
  concealed spaces that are not accessible in
  existing buildings.

 Comm 66.0709 Altered existing mechanical systems. The exception to the requirements in IEBC section 709.1 and the requirements in IEBC section 709.2 are not included as part of this code.

• Comm 66.0710 Minimum plumbing fixtures. Substitute the following wording for the requirements in IEBC section 710.1: Where the occupant load of a story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the IBC based on the increased occupant load.

 Comm 66.0711 Minimum energy conservation requirements. Substitute the following wording for the requirements in IEBC section 711: Level 2 alterations to existing buildings or structures shall comply with <u>s. Comm 66.0607</u>.

### IEBC Ch 7 Alterations - Level 2

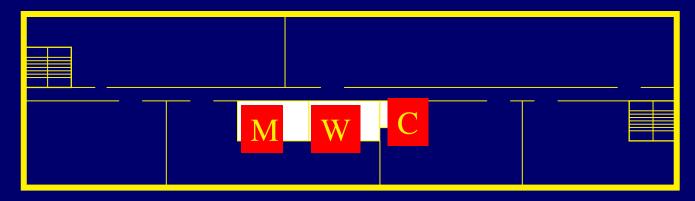
Level 2 alterations include the reconfiguration of space, the addition or elimination of any 1/20/2007 door or window, the reconfiguration or extension of or the installation of dditional equipment.

# **Chapter 7 Alterations - Level 2**

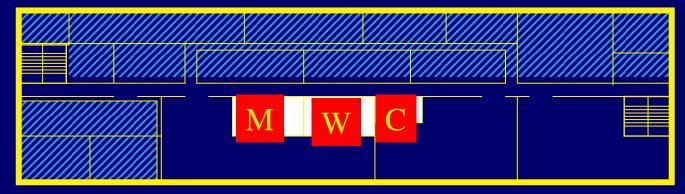
#### Example

- -A rearrangement of 3 tenant spaces results in reconfiguration of 60% of the 1<sup>st</sup> floor. There are no alterations taking place on the second floor of the building.
- -The reconfigured work area is only 30% of the buildings total area. Stays at Level 2!

# Chapter 7 Altn's - Level 2 Example (cont)



#### **Existing First Floor**



**Proposed First Floor** 



There is no specific requirement regarding tenant build-outs . . . <u>NEVER HAS BEEN</u>

History goes back to mid 1980's with "code commentary" [1985]

Expanded in early 1990's when the certified municipality provisos [1991] expanded the size of authorized alt'ns [from vol. of bldg. to vol. of space]

### **Tenant Build-Outs (cont)**

- Although there are no special provisions within the admin. rules that speak to tenant build-outs, they might exist and be spelled out within the agent delegation letter.
- Special provisos could be tailored to fit a special circumstance.
- None Currently Exist.

# **Chapter 7 Alterations - Level 2**

#### A DIFFERENT Example:

- -An existing building can be reused by the owner without rearranging any of the existing spaces but will need to add/subtract/move around some of the existing doors and windows
- Even though there is no reconfigured work area associated with the project, it's still at Level 2!

# IEBC Ch 8 - Level 3 Alt's Direction

### Direction Given on subjects of:

- General [801]
- Special Use/Occ'y [802 & WI]
- Build'g Elements/Matl's [803]
- Fire Protection [804]
- Means of Egress [805]

### **IEBC Ch 8 – Direction (cont)**

- Accessibility [806]
- Structural [807]
- Energy Cons'n [808 & WI]
- Plumbing [Wisconsinism on the State law dealing with the subject commonly referred to as "Potty Parity"]

#### **IEBC Wisconsinisms CH 8**

 Comm Comm 66.0802 Emergency Controls. The requirements in IEBC section 802.2.1 are not included as part of this code.

• Comm 66.0808 Minimum energy conservation requirements. Substitute the following wording for the requirements in IEBC section 808.1: Level 3 alterations to existing buildings or structures shall comply with <u>s. Comm 66.0607</u>.

- Comm 66.080 Plumbing. These are department rules in add'n to the requirements in IEBC chapter 8:
  - (1) Pursuant to s. 101.128, Stats., level 3 alterations within an existing facility where the public congregates shall necessitate that plumbing fixtures serving the work area be provided in a ratio of at least 2 water closets for females as to each water closet and urinal for the males.
- (2) (a) Under this section "facility where the public congregates" has the meaning has given in s. 101.128 (1) (b), Stats.
- (b) Under this section "alterations" has the meaning has given in s. 101.128 (1) (d), Stats., for "renovation".

245

- I am thinking those statutory definitions are important!
- Section 101.128 (1) (b), Stats., reads: "Facility where the public congregates" means any of the following that has a general capacity or a seating capacity of 500 or more persons:
  - 1. An amusement facility.
  - 2. A convention or trade hall or center.
  - 3. A specialty event center.
  - 4. A sports or entertainment arena, center or building.
  - 5. A stadium.
  - 6. An airport, bus terminal, train station or other transportation center.

- Section 101.128 (1) (d), Stats., reads:
   "Renovation" means any structural remodeling, improvement or alteration of an existing facility where the public congregates. "Renovation" does not include any of the following:
  - 1. Reroofing.
  - 2. Cosmetic remodeling, including painting or the installation of wall covering, of paneling, of floor covering or of suspended ceilings.
  - 3. An alteration to an electrical or mechanical system.

### **IEBC Ch 8 Alterations-Level 3**

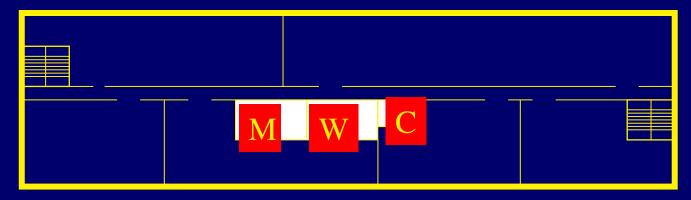
Level 3 provisions come into play where the work area (the area that has been reconfigured – see definition s. 202) exceeds 50% of the aggregate area of the building.

# Chapter 8 Altn's - Level 3 Example

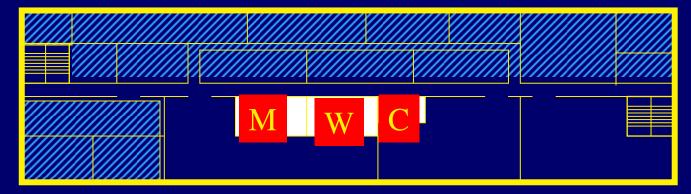
### **Application Example**

- -Consider the same tenant office bld'g discussed in the example of Alteration Level 2.
- -A rearrangement of several tenant spaces results in reconfiguration of 60 % of the 1<sup>st</sup> floor and 47 % of the 2nd floor.

# Chapter 8 Altn's - Level 3 Example (cont)

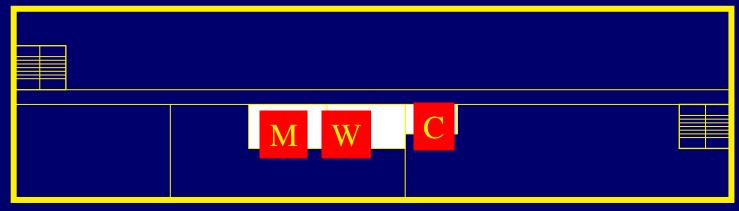


#### **Existing First Floor**

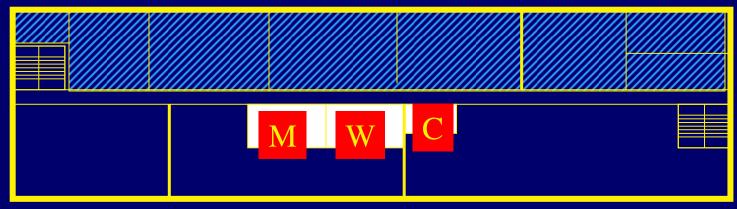


**Proposed First Floor** 

# Chapter 8 Altn's - Level 3 Example (cont)



**Existing Second Floor** 



**Proposed Second Floor** 

# Chapter 8 Altn's -Level 3 Example (cont)

#### **Analysis:**

This is an Alteration, Level 3 project because the work area consists of 53.5% of the building agg. area, over the 50% limit. As a Level 3, req'd. to follow the Chapter 8 provisions in add'n to those of Chs. 7 & 6

# ide area of door or Win

## Ch. 9 – Change of Occupancy What's in 901 to 911?

- **GENERAL** [901 & WI]
- SPECIAL USE & OCCUPANCY [902]
- BLD'G ELEMENTS & MATL'S [903]
- FIRE PROTECTION [904]
- MEANS OF EGRESS [905]
- ACCESSIBILITY [906]

#### Ch. 9 – 901 to 911? (cont)

- STRUCTURAL [907]
- ELECTRICAL [908]
- MECHANICAL [909]
- PLUMBING [910 & WI]
- OTHER REQMT'S [911 & WI] (only light & vent'n)

#### **IEBC Wisconsinisms CH 9**

- There are 4 modifications to Chapter 9 that relate to the basic scoping for change of occupancy as spelled out in Comm 66.0901(1) through (4).
- Comm 66.0901 Change of occupancy. (1) CHANGE IN OCCUPANCY WITH NO OCCUPANCY CLASSIFICATION. Substitute the following wording for the requirements in IEBC section 901.2: A change in occupancy, as defined in IEBC section 202, with no change of occupancy classification shall not be made to any structure which will subject the structure to any special provisions of the applicable international codes, including the provisions of IEBC sections 902 through 911, without the approval of the code official.

#### **IEBC Wisconsinisms CH 9**

- Comm 66.0901 Change of occupancy.
- (2) CHANGE OF OCCUPANCY CLASSIFICATION. This is a department rule in addition to the requirements in IEBC section 901.3: Buildings undergoing a change in occupancy that would result in an increase in demand for either fossil fuel or electrical energy shall comply with IECC.

#### IEBC Wisconsinisms CH 9 (cont)

- Comm 66.0901 Change of occupancy.
- (3) CERTIFICATION OF OCCUPANCY REQUIRED. The requirements in IEBC section 901.4 are not included as part of this code.
- (4) STANDPIPE SYSTEMS. This is a department rule in addition to the requirements in IEBC section 912.2: Standpipe systems shall be provided in existing buildings and structures or portions of existing buildings and structures in accordance with chapter 9 of the IBC when existing buildings or structures that are greater than 60 feet in height are changed to include a Group R-1 or R-2 occupancy.

#### IEBC Wisconsinisms CH 9 (cont)

 Comm 66.0910 Plumbing. Substitute the following wording for the requirements in IEBC section 910: Where the occupant load of a story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the IBC based on the increased occupant load.

#### IEBC Wisconsinisms CH 9 (cont)

 Comm 66.0911 Other requirements. This is a department rule in addition to the requirements in IEBC section 911: At least one existing elevator shall be provided with emergency recall operation and emergency in-car operation complying with ch. Comm 18 when an existing building or structure that is greater than 60 feet in height is changed to include a Group R-1 or R-2 occupancy.

# IEBC Ch 9 Change of Occupancy

- Similar to alteration levels, the extent of the change triggers differing levels of expected compliance.
  - -Change of an occupancy provision that triggers a code requirement, but with no change to occupancy classification or group
  - -Change of Occupancy that changes the Occupancy Classification or Group.

261

# IEBC Ch. 9 – Change within Class or Group

 Change in occupancy, but with no change of occupancy classification or group must conform to Sections 902 through 911 and certain special provisos of the IBC (Covered Mall Bldg., Atriums, etc. – from IBC Ch. 4)

# IEBC Ch. 9 Back to Change within Class or Group

- Change in occupancy, but with no change of occupancy classification or group . . .
- It is not uncommon for changes in activities or activity levels to occur within occupancies that will have implications on life safety risks without a change to class or group

#### Ch. 9 – Change within (cont)

- How did we get here?
- Remember 901.2... Must gain approval of the code official.
- S&B constantly speaks to the "code in effect" and the maintenance of existing conditions.
- Pre or Post 2002 (Model Code era)
- # of Exits and Assy. Sprinklers

#### IEBC Ch. 9 — Change within (cont)

- Most commonly recognized change is that which increases the occupant density within a given space.
- All are aware of the significant dangers and increased risks associated with increasing capacity without consideration for the adequacy of the egress system . . . Think of the other ramifications



Change to more densely populated office space





#### More Densely Populated Office Space

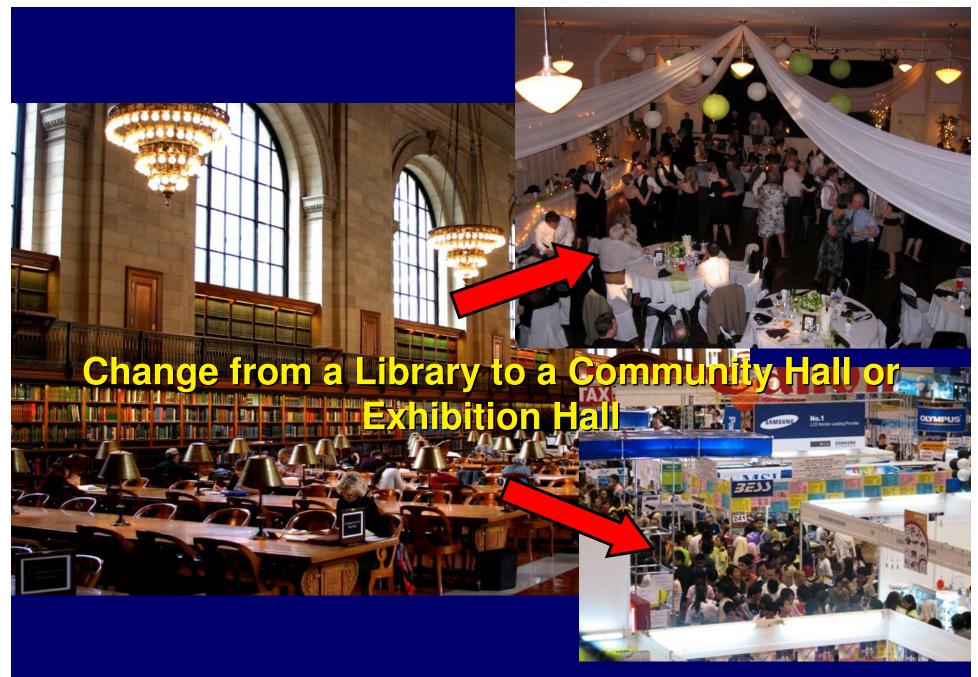
Is it a single exit building or space?
Remember 49 person limit!

No sprinkler trigger based on occupant load



## More Densely Populated Mercantile Space

Is it a single exit building or space?
Remember 49 person limit!
No sprinkler trigger based on occupant load!



## From a Library to a Community Hall or Exhibition Hall

Is it a single exit building or space?

Remember 49 person limit!

A-3 sprinkler trigger based on 300 person occupant load!

## Wisconsinism – Standpipes Changing to R-1 or R-2

Is it a single exit building or space?
Remember 49 person limit!

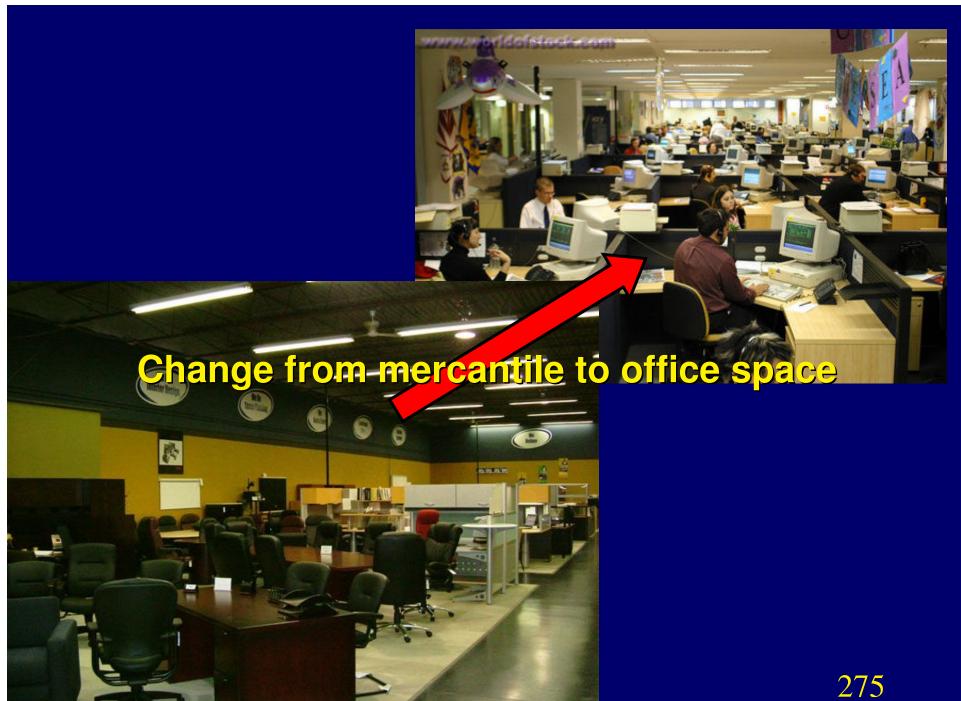
A-3 sprinkler trigger based on 300 person occupant load!

## IEBC Ch. 9 – Change to Class or Group

- When Change moves to different classification or group, Section 912 is added to Sections 902 through 911
- Section 912 Drives MORE reqmt's.
   that must be satisfied of the existing building.

#### IEBC Ch. 9 – Occ'y Change (cont)

- First is the understanding that sprinklering/alarms [per triggers in IBC Ch. 9] and interior finishes [walls & ceilings per IBC – see Ch. 8] must be brought into compliance (IEBC s. 912.2 & 912.3 resp.)
- Next is the analysis of other subject and the relative hazards associated with the change.



#### Ch. 9 — Section 912 (cont)

- Section 912 drives added provisions that have to be improved upon
- Degree of safety enhancements for egress, building size and exterior walls to be based on:
  - ? Is the Change to an equivalent or lesser hazard?
  - Is the Change to higher hazard?

#### Ch. 9 — Section 912 (cont)

 Safety enhancements for Fire Protection Systems (Sprinklers, Standpipes & Alarm/Detection), Interior Finish and Accessibility are NOT based on relativity of hazard... . [refer to IEBC sections 912.1.2, 912.1.4, 912.2, 912.3 & 912.8 plus WI Mod's]

#### Ch 9 – Sect. 912 Relativity of Hazard



#### IEBC TABLE 912.4

## HAZARD CATEGORIES MEANS OF EGRESS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

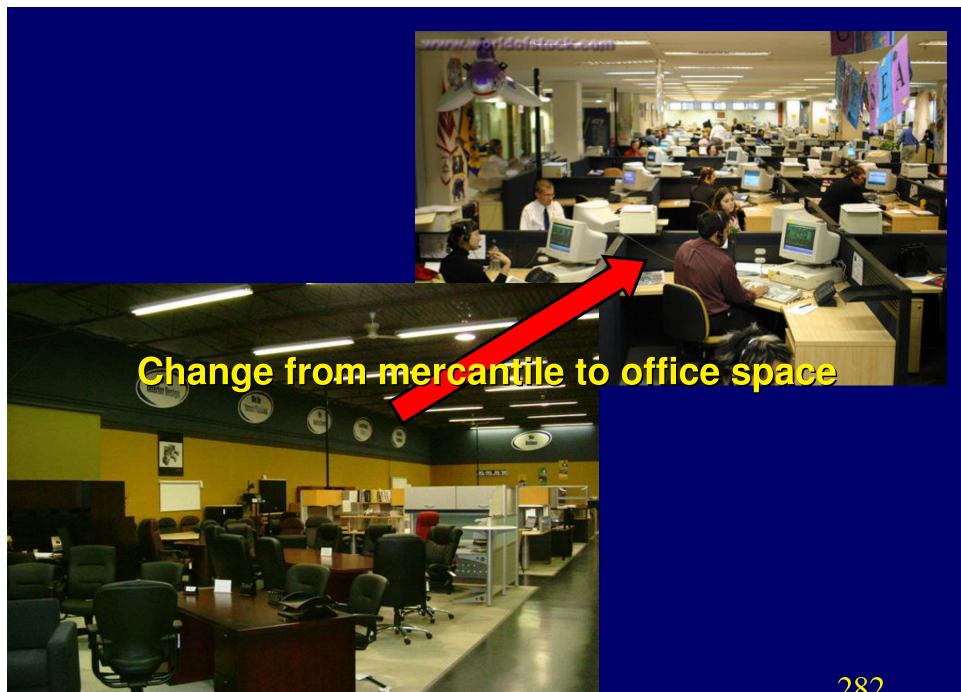
# IEBC TABLE 912.5 HAZARD CATEGORIES HEIGHTS AND AREAS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, M, S-1
4 (Lowest Hazard)	A-5, B, F-2, R-3, S-2, U

#### **EBC TABLE 912.6**

## HAZARD CATEGORIES EXPOSURE OF EXTERIOR WALLS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	F-1, M, S-1
3	A, B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U



#### **IEBC TABLE 912.4**

## HAZARD CATEGORIES MEANS OF EGRESS

RELATIVE H	AZARD	OCCUPANCY CLASSIFICATIONS
1 (Highe	est Hazard)	Н
2		I-2, I-3, I-4
3		A, E, I-1, M, R-1, R-2, R-4
4		B, F-1, R-3, S-1
5 (Lowes	t Hazard)	F-2, S-2, U

# IEBC TABLE 912.5 HAZARD CATEGORIES HEIGHTS AND AREAS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, M, 3-1
4 (Lowest Hazard)	A-5, B, I-2, R-3, S-2, U

#### **EBC TABLE 912.6**

## HAZARD CATEGORIES EXPOSURE OF EXTERIOR WALLS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	F-1, M, 3-1
3	A, B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U



#### **IEBC TABLE 912.4**

## HAZARD CATEGORIES MEANS OF EGRESS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

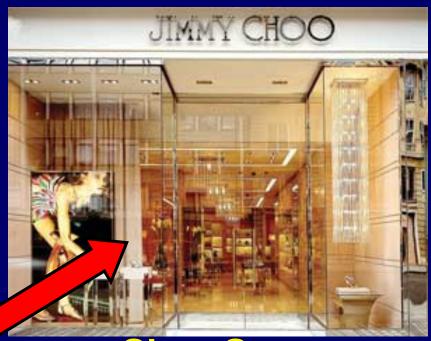
# IEBC TABLE 912.5 HAZARD CATEGORIES HEIGHTS AND AREAS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	A-1 A-2 A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, M, S-1
4 (Lowest Hazard)	A-5, B, 1-2, R-3, S-2, U

#### **EBC TABLE 912.6**

### HAZARD CATEGORIES EXPOSURE OF EXTERIOR WALLS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	F-1, M, S-1
3 Same Level	ABE, I, R
4 (Lowest Hazard)	F-2, S-2, U



Change from Bank space to Shoe Store Bank of America



#### **IEBC TABLE 912.4**

### HAZARD CATEGORIES MEANS OF EGRESS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	I-2, I-3, I-4
3	A, E, I- (, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

# IEBC TABLE 912.5 HAZARD CATEGORIES HEIGHTS AND AREAS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, M, S-1
4 (Lowest Hazard)	A-5, B, F-2, R-3, S-2, U

#### **EBC TABLE 912.6**

### HAZARD CATEGORIES EXPOSURE OF EXTERIOR WALLS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	F-1 M S-1
3	ABE, I, R
4 (Lowest Hazard)	F-2, S-2, U





#### **IEBC TABLE 912.4**

### HAZARD CATEGORIES MEANS OF EGRESS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	I-2, I-3, I-4
3 Same Level	A, E, I- (, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

# IEBC TABLE 912.5 HAZARD CATEGORIES HEIGHTS AND AREAS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	A-1 A-2 A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, M, 5-1
4 (Lowest Hazard)	A-5, B, F-2, R-3, S-2, U

#### **EBC TABLE 912.6**

### HAZARD CATEGORIES EXPOSURE OF EXTERIOR WALLS

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	Н
2	F-1 M S-1
3	A.B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U

#### Ch. 10 – What's in 1001 to 1005?

- **GENERAL** [1001]
- HEIGHTS AND AREAS [1002]
- STRUCTURAL [1003]
- SMOKE ALARMS [1004]
- ACCESSIBILITY [1005]

#### Ch. 11 – 1101 to 1111? (cont)

- STRUCTURAL [907]
- ELECTRICAL [908]
- MECHANICAL [909]
- PLUMBING [910 & WI]
- OTHER REQMT'S [911 & WI] (only light & vent'n)

#### **IEBC Ch 10 Additions**

- Definition
  - -An extension or increase in floor area (including floor infill projects), number of stories, or height of a building or structure
  - -Exception 1002.2
    - Infill stairway or elevate
    - Exit stair or elevator appendages

#### IEBC Ch 10 – Additions (cont)

- Approach
  - -Additions are treated much as they have always been treated by the WCBC.
  - Not creating or extending nonconformance of existing buildings
  - -Separation is often critical

#### IEBC Ch 10 – Additions (cont)

- Approach
  - -Additions are treated much as they have always been treated by the WCBC.
  - Not creating or extending nonconformance of existing buildings
  - -Separation is often critical

### Ch. 10 – Change of Occupancy What's in 1001 to 1011?

- **GENERAL** [901 & WI]
- SPECIAL USE & OCCUPANCY [902]
- BLD'G ELEMENTS & MATL'S [903]
- FIRE PROTECTION [904]
- MEANS OF EGRESS [905]
- ACCESSIBILITY [906]

### Ch. 11 – Historic Buildings What's in 1101 to 1106?

- **GENERAL** [1101 & WI]
- REPAIRS [1102]
- FIRE SAFETY [1103]
- ALTERATIONS [1104]
- CHANGE OF OCCUPANCY [1105]
- STRUCTURAL [1106]

#### **IEBC Wisconsinisms CH 11**

- Comm 66.1101 Historic buildings.
- (1) GENERAL. The requirements in IEBC section 1101.2 are not included as part of this code.

#### IEBC Wisconsinisms CH 11 (cont)

- For Historic Buildings used as exhibits, Wisconsin adds 9 requirements to those found in the IEBC. They are spelled out in (a) through (i) of Comm 66.1101(2)
- Comm 66.1101 Historic buildings. (2) EXHIBIT BUILDINGS. These are department rules in addition to the reqmt's in IEBC section 1105: Historic buildings to be used as exhibit buildings shall comply with all of the following reqmt's: (a) The building shall be open to the public only under the supervision of a tour guide.
- (b) The building may not be lived in, slept in or worked in, except for the purpose of demonstrating to the public how people lived in a particular era.

#### WI Historic Exhibit Bldgs (cont)

- Wisconsin 9 criteria (cont'd)
- (c) Smoking is prohibited in the building.
   (d) Open flame equipment may not be used in the building, except for fire places and other mechanical equipment original to the building.
   (e) Fire extinguishers shall be installed in exhibit buildings and may be located in a nonconspicuous location but accessible to the occupants.

#### WI Historic Exhibit Bldgs (cont)

- Wisconsin 9 criteria (cont'd)
  - (f) 1. At least one smoke detector shall be provided for each 1,200 square feet of floor area with a minimum of one smoke detector per floor level.
  - 2. a. Except as specified in <u>subd. 2. b.</u>, where electricity is provided in the exhibit building, the smoke detectors shall be connected to the electrical power.
  - b. Where no electrical power is provided to an exhibit building, the smoke detectors shall be of a battery type.
  - c. Smoke detectors shall be tested weekly.

#### WI Historic Exhibit Bldgs (cont)

- Wisconsin 9 criteria (cont'd)
- (g) Exhibit buildings provided with only one means of egress shall be restricted to a total capacity of 12 people, and not more than 6 people may be located above or below the first floor at any one time.
  - (h) Stairways without 6-foot, 4-inch vertical headroom clearance shall have signs posted warning occupants of the headroom clearance available.
  - (i) Exit signs shall be provided in accordance with the prevailing code in exhibit buildings occupied prior to ½-hour before sunrise and ½-hour after sunset and in all areas not provided with natural lighting.

309

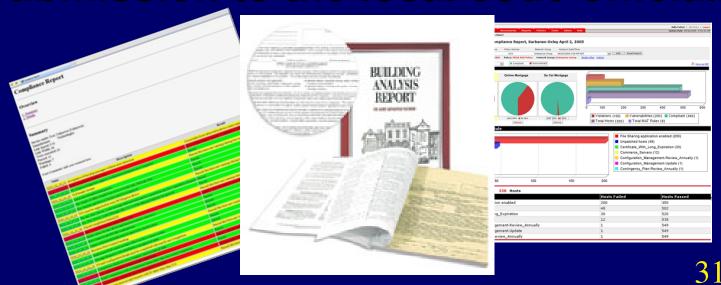
## IEBC Ch 11 Historic Buildings



- Approach
  - -Work performed in historic bldge allows specific additional exceptions to IEBC reqmt's for repair, altn's, and change of occupancy
  - -Fire suppression systems often cure most ills . . . NOT no. of exits

#### Section 1101 - General

• 1101.2 - Be prepared to have owners asking if you would be willing to pull together a report on their behalf for submission to the local code official.



#### **Section 1103 Fire Safety**

- 1103.2 & 1103.12 Historic Buildings that do not conform to the construction provisions of the code & constitutes a distinct fire hazard can install an approved automatic fire-extinguishing system as an alternative
- CANNOT use the system as an alternative to the number of exits

#### **Section 1103 Fire Safety Details**

- Egress [1103.3]
- Transoms [1103.4]
- Interior Finishes [1103.5]
- Stairway Enclosure [1103.6]
- One-Hour Fire-Res. Assy's [1103.7]

#### Fire Safety Details (cont)

- Glazing in Fire-Res. Syst's [1103.8]
- Stairway Railings [1103.9]
- Guards [1103.10]
- Exit Signs [1103.11]
- Auto. Fire-Exting. Syst's [1103.12]

## Section 1103.3 Means of Egress

 ...nonconforming width may be approved by the code official...front or main door need not swing in the direction of travel where other approved means are provided

#### **Section 1103.4 Transoms**

...Transoms in fully sprinkled R-1, R-2 & R-3 can leave the transoms in corridors and other rated walls if fixed in the colosed position . . .

### Section 1103.5 Interior finishes

• ...where demonstrated as historic...may remain



## Section 1103.6 Stairway enclosure

...three stories or less...limit the

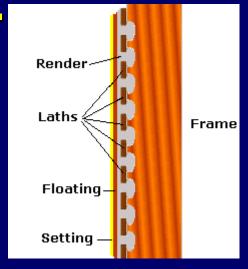
spread of smoke



### Section 1103.7 One-hour fire-resistive assembles

 ...where required...need not be provided where existing wall and ceiling finish is wood or metal lath

and plaster.



## Section 1103.8 Glazing in fire-resistive systems



## Section 1103.9 Stairway railings

 ...grand stairways shall be accepted...existing handrail and guards permitted to remain...





#### Section 1103.11 Exit signs

 ...where historic character is affected alternative exit signs may be permitted



#### **Section 1104 Alterations**

- Section 1104.1 Accessibility requirements ...Section 605 shall apply unless technically infeasible
- Where historic significance threatened...alternative requirements...
  - 1104.1.1 Site arrival
  - 1104.1.2 Multi-level buildings
  - 1104.1.3 Entrances
  - 1104.1.4 Toilet and bathing facilities

# Section 1105 Change of Occupancy — WI Mod

Comm 66.1101 Historic buildings. (2) EXHIBIT BUILDINGS. (add's reqmt's to those of IEBC s.1105) Historic buildings to be used as exhibit buildings . . . refer to (a) to (i) for specific details

### Occupancy Change Specific Provisions

- Cannot ignore Ch. 9 except as specifically called for in Ch. 11. When Ch. 9 states you are to follow specific provisions from Ch's 5, 6 or 7 and those are covered by the exceptions in s.1102, that exception governs
- Now what are some of those items that are specifically called out and covered in Chapter 11?

### Specifically Called out Provisions – IEBC 1105

- There are 14 different subjects...
- Building Area [1105.2]
- Loc'n. on Prperty [1105.3]
- Occupancy Separations [1105.4]
- Roof covering [1105.5]

#### 14 Specific Items (cont)

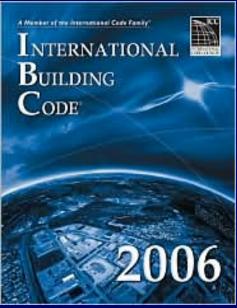
- Means of Egress [1105.6]
- Door Swing [1105.7]
- Transoms [1105.8]
- Finishes [1105.9]
- One-Hour Fire-Res. Assy's [1105.10]

#### 14 Spec. Items (cont)

- Stairs & Railings [1105.11]
- Exit Signs [1105.12]
- Exit Stair Live Load [1105.13]
- Natural Light [1105.14]
- Accessibility [1105.15]

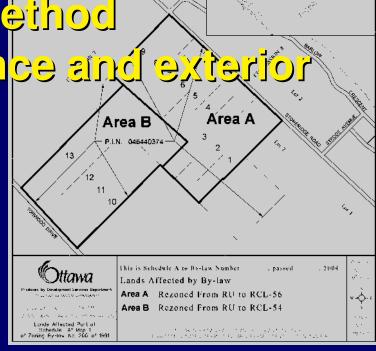
#### Section 1105.2 Building area

...20% area increase beyond IBC chapter 5 is permitted



### Section 1105.3 Location on property

• ...where change of use to higher hazard...alternative method regarding fire resistance and exterior openings permitted



# Section 1105.4 Occupancy Separation

 ...required separation of one-hour can be omitted where sprinklered.



# Section 1105.5 Roof Covering

• ...covering not less than Class "C" where fire-retardant roof covering is required.

Flashing -Structural Trusses

Tar Paper — Underlayment

## Section 1105.6 Means of Egress

 ...existing openings and widths less than acceptable for a non-historic building...acceptable by code official.

#### **Section 1105.7 Door Swing**

When approved by the code official, existing front doors need not swing in the direction of exit travel, provided that other approved exits having sufficient capacity to serve the total occupant load are provided.

#### **Section 1105.8 Transoms**

- In corridor walls required to be fire rated, transoms can remain if fixed in the closed position and wired glass (or other app'd glazing) set in a steel frame is installed on one side of the transom.
- Exception: Transoms conforming to Section 1103.4 are to be accepted.

336

#### Section 1105.9 Finishes

- Where finishes need a flame-spread classification of Class III or better, existing nonconforming matl's to be surfaced with an approved fireretardant paint or finish.
- Exception: When the Existing Materials are substantiated as being historic in character, OK to treat/cover with fireretardant paint or finish provided the bldg is fully sprinkled.

### Section 1105.10 One-hour Assemblies

Where 1-HR fire rated construction is required, you can disregard in all cases where the existing wall and ceiling finish is wood lath and

plaster.

# **Section 1105.11 Stairs and Railings**

- Existing stairways are to meet the provisions from s. 1103. The code official is to grant alternatives for stairs & rails when found to be acceptable or judged to meet the intent of those provisions.
- Exception: For Bldg's < 3,000 SF the exist'g stairs/rails OK "as-is".

#### Section 1105.12 Exit signs

The code official may accept alternative exit sign locations where normal signage would damage the historic character of the building or structure. The signs must still identify the egress path and the exits.

### **Section 1105.13 Exit Stair Live Load**

Existing <u>historic</u> stairways in buildings changed to a Group R-1 or R-2 occupancy are to be OK'd provided the stairway can support a 75 PSF live load.

### Section 1105.14 Natural Light

When the code official determines compliance with the natural light requirements of Section 911.1 will lead to loss of historic character or historic materials in the building, the existing natural lighting is to be considered acceptable.

#### Section 1105.15 Accessibility

The provisos of s. 912.8 apply unless technically infeasible. Where the CO determines compliance with the regmt's for accessible routes, ramps, entrances, or toilet facilities would threaten or destroy the historic significance of the bld'g, the alternatives of ss. 1104.1.1 - 1104.1.5 are to be allowed

#### **Section 1106 Structural**

- Section 1106.1 General ...comply with Chapter 4
- Exception...code official can accept existing floor structures and approve or impose operational controls that will limit live loads to correspond with the adequacy of the structure

## IEBC Ch 12 Relocated or Moved Buildings

Covers exist'g Commercial Bldgs moved essentially intact

#### **Approach**

- Location on the lot & the foundation must comply with the applicable IBC provisions
- Other than limited except's, wind, seismic, snow and flood provn's of the IBC must be complied with at the new location

## IEBC Ch 12 Relocated or Moved Buildings



#### **IEBC Wisconsinisms CH 13**

- CommComm 66.1301 Compliance with other codes.
- (1) Substitute the following wording for the requirements in IEBC section 1301.2: The provisions of sections 1301.2.1 through 1301.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R and S. These provisions shall not apply to buildings with occupancies in Group H or Group I.
- (2) The requirements in IEBC section 1301.3.2 are not included as part of this code.

## IEBC Ch 13 Compliance Alternatives

- Intended to maintain or increase the current degree of public safety, health and general welfare without full compliance
- Approach is similar to the numerical balancing method that was used in the WI Historical Code of the past.
  - -Alternative to Chapters 5-11

### Compliance Alternatives Key Elements

- Investigation and Evaluation . . .
   Includes Structural Analysis
- In essence, 19 distinct items are compared and ranked against the 3 main categories of Fire Safety, Means of Egress & General Safety
- Scores Developed Resulting in "Pass" or "Fail" for <u>each</u> of those Main Categories

### Compliance Alternatives 19 Distinct Items

- Building Height [1301.6.1]
- Building Area [1301.6.2]
- Compartmentation [1301.6.3]
- Tenant & D.U. Separations [1301.6.4]
- Corridor Walls [1301.6.5]
- Vertical Openings [1301.6.6]

#### 19 Distinct Items (cont)

- HVAC Systems [1301.6.7]
- Auto Fire Detection [1301.6.8]
- Fire Alarm System [1301.6.9]
- Smoke Control [1301.6.10]
- Means of Egress (MOE) Capacity [1301.6.11]
- Dead Ends [1301.6.12]

#### 19 Distinct Items (cont)

- Max. Exit Travel Distance [1301.6.13]
- Elevator control [1301.6.14]
- MOE Emergency Lighting [1301.6.15]
- Mixed Occupancies [1301.6.16]
- Automatic Sprinklers [1301.6.17]
- Standpipes [1301.6.18]
- Incidental Use Area Protection [1301.6.19]

# IEBC Ch 14 Construction Safeguards

- Should be very familiar . . . Similar to IBC Ch. 33, but geared to conditions associated with existing buildings
- Includes provisions for the general protection of the public & site cleanliness (includes sanitary)
- Covers 7 other specific items...

#### 7 Specific Const. Safeguards

- Prot'n of Adjoining Property
- Temp. Use of Public Ways and Prop.
- Fire Extinguishers
- Exits
- Standpipe Systems
- Automatic Sprinkler Systems
- Accessibility

### **IEBC Summary**

- The goal of Comm 66 [IEBC] is to encourage the continued use & re-use of existing buildings.
- Comm 66 [IEBC] Includes all provisos regulating all aspects of existing bldgs ranging from structural to mechanicals.
- Brings the reqmt's of each category of work into one spot for easy use

#### **IEBC Summary (cont)**

 Comm 66 [IEBC] provides alternate methods for compliance by means of the administrative provisions found in Chapter Comm 61 & the compliance alternative provisions of IEBC Ch 13

### Questions ???





